GLOBAL LINGUISTIC CONNECTIONS

BIBLIOTHECA NOSTRATICA

Editor: Gyula Décsy

Volume 5

Global Linguistic Connections

Contributors:

Raimo Anttila, Gyula Décsy, Carleton T. Hodge,
John R. Krueger, John Lotz, Adam Makkai,
Merritt Ruhlen and Thomas A. Sebeok

On the Occasion of the
World Communication Year

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ISBN 0-931922-04-6

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Toward the Description of the Languages of the World

By John Lotz

Preamble

Participants in the Symposium assembled at Burg Wartenstein[1] August 1-8, recommend a long-range international cooperative program to further the description of the languages of the world through systematic planning on a global scale.

The idea of describing the languages of the world is not new. It has an established tradition in the history of linguistics. Attempts to list the world's languages date back centuries, and several surveys of the world's languages have been published. Recently, various national and regional language descriptions have been completed, such as that of the Soviet Union.[2] Other similar projects are presently underway and are likely to increase in number.

Recognition of the increasing importance of linguistics in scholarship and the corresponding increase in available manpower make such a project practically feasible for the first time. In addition, modern technology provides previously unavailable aids in production and reproduction of materials and information storage and dissemination. In order to most efficiently utilize[3] these resources and avoid a fragmentation of effort, it is desirable to encourage international coordination of language description projects.

Such a large-scale program should distinguish two kinds of geographical areas: those in which the languages are well-described and those in which they are less well-known. It is clear that the project will mean little for the major languages of the world and also that many descriptions will contain only very fragmentary information; but for a large number of languages significant new contributions could be made. The project would determine lacunae for future research. It would also focus attention on disappearing languages and provide the last opportunity for descriptions of these languages.

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[1] See remark p. 5.

[2] See *LSU*, p. 144.

[3] Split infinitive: according to one of his American students, Lotz would not split infinitives. Maybe the text was edited by a bureaucrat.

It is important that control of the project be locally based in cooperation with regional and national agencies; but it is also important that all relevant resources be utilized. For the success of the program, it is also vital that many more native speakers be trained to describe their mother tongue.

The program presupposes some general requirements as to format and content: information about main features of grammar and lexicon accompanied by texts and tapes on the one hand, and bibliography and sociolinguistic data on the other. Uniformity in theoretical approach shall obviously not be required, provided the theoretical basis is made as explicit as possible and maximum attention is given to the presentation of data.

This undertaking is expected to make a substantial impact on linguistics, giving for the first time access to all available information on the languages of the world. It would contribute to linguistic theory, to language typology, and to the establishment of language groupings through comparison, and also to other fields such as education, language planning and public administration. It would also be of value to other disciplines concerned with language.

The program is envisaged as consisting of two phases: (1) an initial period of approximately two years for planning and (2) a subsequent period of implementation. The work during the preparatory phase should be supervised by a small and representative committee.

Resolutions

The following resolutions constitute recommendations of the Symposium participants for the initiation of the program:

RESOLVED:

A. 1. That a preparatory phase of approximately two years should be devoted to a review of past and present activities in the field of language description.

2. That to facilitate the stocktaking, the following steps should be taken:

a. Information on current activities in the field of description should be collected and made available in a preliminary form. It should cover major public and private collections of linguistic materials, surveys, and publication series. Special attention should be paid to areas where little descriptive work has been done.

b. Questionnaires for eliciting language data and guidelines for their presentation should be collected and made available for inspection and comments by individuals and institutions concerned.

c. Plans should be initiated towards the creation of a series of republications and translations of descriptions and surveys now not generally accessible.

3. That steps should be taken towards the development of an international network to facilitate communication between agencies and individuals now active in the field and for the gathering and processing of information on language description.

B. That during the preparatory phase the Center for Applied Linguistics be requested to coordinate and implement these programs.

C. That a summary report of this conference be prepared, including the recommendations, and that it be immediately given wide distribution.

D. 1. That in order to promote international discussion of the aims of the project the Comité International Permanent des Linguistes should be asked:

a. To devote one of the plenary sessions of the International Congress of Linguists planned for Bologna in 1972 to the project; and

b. To set up an exhibit of language survey materials including publications and maps, such as the U.S.S.R. language series and the Pacific and Oceania monographs.

2. That a follow-up conference, with essentially the same participants, be held (preferably early) in 1972 to review the intervening activities and to discuss the presentation at the Bologna Congress.

Interim Organization

To execute the above resolutions, the following interim organizational structure was established:

1. Participants at this conference form an initial Interim Committee for the preparatory period.

2. An Executive Committee was selected to direct the activities of the preparatory phase of the program. The members are: Gilbert Ansre (Ghana), Chairman, Victoria Jarceva (Soviet Union), P. B. Pandit (India), Jean Perrot (France), Kenneth Pike (United States), Jorge Suárez (Mexico), and Stephen Wurm (Australia). All those selected agreed to serve.

Acknowledgement

The participants expressed their gratitude to the Wenner-Gren Foundation for Anthropological Research, and especially to the Director of Research, Mrs. Lita Osmundsen, and the following staff members from the New York office: Charlotte Frey, Karl Frey, Arlene Sheiken, and Judy Webb.

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"Toward the Description of the Languages of the World"
Burg Wartenstein, August 1-8, 1970

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Shirô Hattori — Co-Editor, *Sekai gengo gaisetsu* (An Introduction to the Languages of the World); Director, Tokyo Institute for Advanced Studies of Language (Professor Emeritus of Linguistics, University of Tokyo)

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Joseph Greenberg — Co-Director, Language Universals Project, Stanford University; Director, West African Language Survey (Professor of Anthropology, Stanford University)
Unable to attend, but contributed a paper

Remark of the Editor: The manuscript of this article was given to me by John Lotz in 1971. He intended to publish it in a special issue of the *Ural-Altaische Jahrbücher*. For various reasons, the manuscript could not be printed in that journal. I am happy to make it accessible to the world community of linguists in this volume which intends to realize a modest part of the ideas contained in Lotz's contribution.

A Preliminary List of the *h*-less Languages of the World: An Attempt at a Global Phoneme-Geography

By Gyula Décsy

In my opinion *h* is a very ancient unit of the human sound (phoneme) inventory (Décsy 1977.13-27, see also: Basic Laryngeal Noise in *Entries*). Regardless of whether one agrees or disagrees with this assumption, the presence or absence of *h* from a given language is an important typological index (parameter). This view can be maintained in spite of the fact that *h* is a very unstable consonant (i.e., it has numerous individual variations, and it can be interpreted phonologically in many different ways). It is historically unstable as well: experience shows that it disappears easily (see Romance languages in contrast with Classical Latin). At the same time, it can be reintroduced in languages which dropped it in an earlier stage of their development. The introduction of *h* may be the result of foreign (areal) influence (as in Finnish, Latvian or Rumanian) or of an internal development (e.g., *k* > Germanic *h*, Uralic *k* > Hungarian *h*, Décsy 1977.1.558). The most common sources of a new "internal" *h* seem to be *k, t, s, š, p, kh,* i.e. stops, or fricatives originating in stops (*t* > *s*, *k* > *x*). The distribution of *h* in the word is often subject to limitations. For example, in High German or Standard English it can occur only in word initial position. Even in such "strong" *h*-languages as Finnish and Hungarian, there are confinements concerning the distribution of *h*: it never appears at the end of the word in these languages. A preconsonantal occurrence of *h* is rare in my observations. In Europe, for instance, it is limited to several languages of the Viking area (Icelandic, Lapp, Finnish, Celtic, see Décsy 1973.45). Historically, *h* seldom changes into another consonant: its most usual mutation is total disappearance (Ruhlen 1979). Regarding markedness we might state that *h* is the *least* marked consonant of the phoneme inventory (therefore, according to the basic principle of the evolution theory, it must be ancient and primary). It is also easy to articulate: the tongue, lips, jaw, etc. (i.e. the organs of the supralaryngeal sound production tract) are not necessary to produce it. Nevertheless, a Frenchman or Russian learning English or German as a second language is often unable to pronounce it correctly, even after many years of practice. German-speaking Frenchmen with their *Ärren* (instead of *Herren*) or English-speaking Russians pronouncing *khow* (for *h*ow) are favorite butts of jokes. The *h* is often confused (even by linguists, Ruhlen 1979) with the velar fricatives ɣ (*gh*), *x* (*kh*), and especially with the pharyngeals (*h*, ʕ). In absolute final position (at the end of the word without sandhi), *h* can alternate with *x* (as in Slovak, Rumanian, etc.).

The absence of the *h* seems to be an essential parameter on a global linguistic basis. I call this parameter "*h*-lessness". Merritt Ruhlen, the author of the book *A Guide of the Languages of the World,* dealt with this parameter in a separate publication (Ruhlen 1977.142-143 and 156). My figures confirm his results that ca. 36% of the world languages and the world population is *h*-less (see below). According to Ruhlen, of the 693 languages listed in his Guide, 248 have no *h* in their phoneme system. They are distributed over the six macroareas (continents) of the earth as follows (data according to Ruhlen 1977.156):

Africa	39%	(43 out of 109)
Europe	35%	(46/133, 133 includes Caucasus)
Asia	38%	(35/92, Siberia and Asia Proper together)
Oceania	57%	(81/141)
North America	19%	(28/145)
South America	21%	(15/73)

The purpose of this article is to specify the *h*-lessness on the basis of a complete enumeration of languages and to identify it geographically as well as genetically. As a statistical simplification, I work with 700 registered languages (see Statistics 3.2). In contrast to Ruhlen I did not regard Capanauha, Chypewyan, Polish, Serbocroatian and Ukrainian as *h*-less. Friulan and Provençal are included in my list with Italian and French, respectively (as parts of these languages). Twenty-three other languages, which have *h* only marginally, were counted by Ruhlen as *h*-less, while by me as *h*-ful (for list, see Ruhlen 1979). Because of differences in counting, there are some numerical discrepancies between Ruhlen's figures and my results. In some cases, I followed Ruhlen's identifications against my own conviction (see remarks to Dutch and Flemish, position number 57). Compromises and arbitrariness are, of course, inevitable in such statistics. The names and data for genetic/geographic identifications in the list (pp. 9-17) are given according to Ruhlen 1976.153-299 with the difference that instead of phyla (e.g. Austro-Tai, Altaic, see Statistics 3, p. 105) in some cases distinctively narrower units/subgroups (Austronesian, Turkic, Tungus, etc.) were disclosed (so also on pp. 17-25). The speaker numbers (third column) appear also according to Ruhlen; no data there means that the speaker number of the particular language is less than 100 (statistically negligible). I regard the consonants *x*, *ʔ*, *ŋ*, *q*, *w* and ɣ (*gh*) as very archaic (Décsy 1977.67 and Entry 097); therefore, I checked at each *h*-less language which of these six consonants exist in the phoneme system (data group, column four).

Name of Language Affiliation	Area	Speakers in Thousands	Data Group x	 ʔ	 ŋ	 q	 w	 ɣ[1]	Source Ruhlen 1976
1. Achi Penutian	Guatemala	12.0[2]	+	−	−	+	+	−	153
2. Aguacatec Penutian	Guatemala	8.0	+	−	−	+	+	−	154
3. Alawa Australian	Australia		+	+	−	+	+	−	155
4. Aleut East Eskimo-Aleut	Alaska	.6	−	−	+	−	+	−	156
5. Altai Turkic	USSR	48.0	+	−	+	+	+	−	156
6. Alutor Paleosiberian	USSR		−	−	+	+	−	−	156
7. Amuesha Andean-Equatorial	Peru	4.0	−	−	+	+	+	+	156
8. Angataha Indo-Pacific	New Guinea	.8	+	−	+	−	+	+	157
9. Angor Indo-Pacific	New Guinea	1.3	−	+	+	−	+	−	157
10. Aramaic East Semitic	Iran	23.0	+	−	+	−	+	−	159
11. Araucanian Penutian	Chile	200.0	+	+	−	+	−	−	161
12. Arosi Austronesian	Solomon Islands		−	+	+	−	+	−	161
13. Atayal Austronesian	Taiwan	36.0	+	+	+	+	+	+	162
14. Auca Andean-Equatorial	Ecuador	.2	−	−	+	−	+	−	162
15. Auyana Indo-Pacific	New Guinea	5.0	−	−	+	−	+	−	163
16. Awa Indo-Pacific	New Guinea	1.0	−	+	−	−	+	−	163
17. Awji Indo-Pacific	New Guinea		−	+	−	−	+	−	163
18. Aymara Andean-Equatorial	Peru	2.0	+	−	+	+	+	−	164
19. Baluchi Iranian	Pakistan	2,000.0	−	−	+	−	+	−	165
20. Barua Indo-Pacific	New Guinea	4.0	−	−	−	−	+	+	165
21. Basila Niger-Kordofanian	Dahomey	5.0	−	+	+	−	+	−	166
22. Basque Isolate	Spain/France	700.0	−	+	+	−	+	−	166

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[1] As the presence/absence of these consonants can be casually connected with *h*-lessness, I insert them at each language in order to make easier follow-up investigations. For the time being, the only registerable result is that out of 210 languages 159 have a *w* (75.7%).

[2] Fractional numbers (0.1, etc.) had to be applied in order to register languages with speaker numbers of less than 1000.

Name of Language Affiliate	Area	Speakers in Thousands	Data Group x	ʔ	ŋ	q	w	ɣʷ	Source Ruhlen 1976
23. Binumarien Indo-Pacific	New Guinea		–	–	–	–	–	–	170
24. Blackfoot Macro-Algonquian	USA/Montana	5.0	+	+	–	–	+	–	170
25. Boazi Indo-Pacific	New Guinea	1.9	–	+	–	–	+	–	170
26. Bororo Ge-Pano-Carib	Brazil	.4	–	–	+	+	+	+	170
27. Breton Celtic	France	1,000.0	–	–	–	–	+	–	170
28. Buang Austronesian	New Guinea	7.0	+	–	+	–	+	–	171
29. Buin Indo-Pacific	Bougainville	9.0	–	–	+	+	+	+	171
30. Bulgarian Slavic	Bulgaria	8,000.0	+	–	+	–	–	–	172
31. Burera Australian	Australia	.4	–	–	+	–	+	–	172
32. Buryat Mongolian	USSR	353.0	+	–	+	–	–	–	173
33. Byelorussian Slavic	White Russia	10,000.0	+	–	+	–	–	+	173
34. Camsa ?	Columbia		+	–	–	–	+	–	174
35. Cashibo Ge-Pano-Carib	Peru		–	+	–	–	–	–	175
36. Cashinawa Ge-Pano-Carib	Peru	2.0	–	–	–	–	+	–	175
37. Catalan Romance	Spain/France	5,000.0	–	–	–	–	+	–	175
38. Cayapo Ge-Pano-Carib	Brazil	1.5	–	+	+	–	+	–	176
39. Chimbu Indo-Pacific	New Guinea	120.0	–	–	+	–	+	–	179
40. Chontal Hokan	Mexico	9.0	+	+	–	–	+	+	181
41. Chorti Penutian	Guatemala	33.0	–	+	–	–	+	–	181
42. Chuave Indo-Pacific	New Guinea	19.0	–	–	+	–	+	–	182
43. Chuj Penutian	Guatemala	14.0	+	+	+	+	+	–	182
44. Chukchi Paleosiberian	USSR	10.0	–	+	+	+	+	+	182
45. Chulym Turkic	USSR	48.0	+	+	+	+	+	+	182
46. Chuvash Turkic	USSR	1,500.0	+	–	–	–	+	–	183
47. Cocopa Hokan	Arizona	1.0	+	+	–	–	+	–	184
48. Dagbani Niger-Kordofanian	Ghana	220.0	–	–	+	–	+	–	186

Name of Language Affiliate	Area	Speakers in Thousands	x	ʔ	ŋ	q	w	ɣ	Source Ruhlen 1976
49. Daju Nilo-Saharan	Sudan	100.0	−	−	+	−	+	−	187
50. Dan Niger-Kordofanian	Ivory Coast	300.0	−	?	−	−	−	−	187
51. Dangaleat Afro-Asiatic	Chad	16.0	−	−	+	−	+	−	187
52. Dera Indo-Pacific	New Guinea	1.0	−	−	+	−	+	−	188
53. Diegueño Hokan	Mexico	.2	+	+	−	−	+	−	189
54. Dieri Australian	Australia		−	−	+	−	+	−	189
55. Djadjala Australian	Australia		−	−	+	−	+	−	189
56. Dungan Sino-Tibetan	USSR	23.0	+	−	+	−	+	−	190
57. Dutch/Flemish Germanic	The Netherlands Belgium, etc.	20,000.0	+	−	+	−	+	+	190

h-lessness controversial. In French influence-areas no *h*, for Standard Netherlandic see *haar* 'hair', *hamer* 'hammer', *Hollands* 'Dutch', *houden* 'to hold, to keep', etc.

Name of Language Affiliate	Area	Speakers in Thousands	x	ʔ	ŋ	q	w	ɣ	Source Ruhlen 1976
58. Dyirbal Australian	Australia	40.0	−	−	+	−	+	−	190
59. Efik Niger-Kordofanian	Nigeria	2,000.0	−	−	+	−	+	−	191
60. Enga Indo-Pacific	New Guinea	150.0	−	−	+	−	+	−	191
61. Etsako Niger-Kordofanian	Nigeria	120.0	−	−	+	−	+	−	192
62. Evenki Tungus	USSR	24.0	+	−	+	−	−	−	193
63. Ewe Niger-Kordofanian	Ghana	1,700.0	+	−	−	−	+	+	193
64. Ewondo Niger-Kordofanian	Cameroon	93.0	−	−	+	−	+	−	193
65. Fore Indo-Pacific	New Guinea	12.0	−	+	−	−	+	−	194
66. French Romance	France, etc.	75,000.0	−	−	−	−	+	−	194
67. Ga'anda Afro-Asiatic	Nigeria	10.0	+	+	+	−	+	−	196
68. Gadsup Indo-Pacific	New Guinea	7.0	−	+	−	−	−	−	196
69. Geleba Afro-Asiatic	Ethiopia	18.0	−	−	+	−	+	−	199
70. Gilbertese Austronesian	Gilbert Islands	44.0	−	−	+	−	+	−	199
71. Grebo Niger-Kordofanian	Liberia	50.0	−	−	+	−	+	−	200
72. Greek (Modern) Indo-European	Greece	8,000.0	+	−	−	−	−	+	201

Name of Language Affiliation	Area	Speakers in Thousands	Data Group						Source Ruhlen 1976
			x	ʔ	ŋ	q	w	ɣ	
73. Guarani Andean-Equatorial	Bolivia	2,000.0	+	+	+	–	+	+	201
74. Gudandji Australian	Australia		–	–	+	–	+	–	201
75. Gusii Niger-Kordofanian	Kenya	255.0	–	–	+	–	+	+	202
76. Haitian Creole Romance	Haiti	4,500.0	–	–	–	–	+	–	203
77. Higi Afro-Asiatic	Nigeria	200.0	+	+	+	–	+	+	204
78. Iatmul Indo-Pacific	New Guinea	8.0	–	?	–	–	+	+	207
79. Inupik Eskimo-Aleut	USSR	60.0	+	–	+	+	–	+	210
80. Italian Romance	Italy	60,000.0	–	–	–	–	+	–	212
81. Itavan Austronesian	Philippines	11.0	+	+	+	–	+	+	212
82. Ixil Penutian	Guatemala	25.0	–	–	+	–	+	–	212
83. Jalanga Australian	Australia		–	–	+	–	+	–	213
84. Jivaro Andean-Equatorial	Peru	20.0	+	+	+	–	+	–	214
85. Juang Austro-Asiatic/Munda	India	17.0	–	–	+	–	+	–	214
86. Juat Australian	Australia		–	–	+	–	+	–	214
87. Kalinga Austronesian	Philippines	40.0	–	+	+	–	+	–	215
88. Kalkutung Australian	Australia	6.0	–	–	+	–	+	–	215
89. Kamchadal Paleosiberian	USSR	.4	+	+	+	+	+	+	215
90. Kanuri Nilo-Saharan	Chad	2,000.0	–	+	+	–	+	–	216
91. Karam Indo-Pacific	New Guinea	10.0	–	–	+	–	+	–	217
92. Kardutjara Australian	Australia	4.0	–	–	+	–	+	–	217
93. Katcha Niger-Kordofanian	Sudan	6.0	–	+	+	–	+	–	218
94. Kaugel Indo-Pacific	New Guinea	8.0	–	–	–	–	+	–	219
95. Ket (Imbat) Paleosiberian	USSR		+	+	+	+	+	–	220
96. Kewa Indo-Pacific	New Guinea	47.0	+	–	–	–	+	–	221
97. Khakas Turkic	USSR	48.0	+	–	+	–	–	–	221
98. Kirghiz Turkic	USSR	1,500.0	?	–	+	–	+	–	222

Name of Language Affiliate	Area	Speakers in Thousands	Data Group						Source Ruhlen 1976
			x	ʔ	ŋ	q	w	ɤ	
99. Kitabal Australian	Australia	.2	−	−	+	−	+	−	222
100. Kitja Australian	Australia	.3	−	−	+	−	−	−	222
101. Koalib Niger-Kordofanian	Sudan	24.0	−	−	+	−	+	−	223
102. Koko-Jelandji Australian	Australia	.5	−	−	+	−	−	−	224
103. Kolami Dravidian	India	67.0	−	−	+	−	−	−	224
104. Komi (+Permjak) Uralic	USSR	500.0	−	−	−	−	−	−	224
105. Koryak Paleosiberian	USSR	6.0	−	+	+	−	+	+	225
106. Kota Dravidian	India	.9	−	−	−	−	−	−	225
107. Kpelle Niger-Kordofanian	Liberia	500.0	−	−	+	−	+	+	225
108. Kru Niger-Kordofanian	Liberia	100.0	−	−	−	−	+	−	225
109. Kunimaipa Indo-Pacific	New Guinea	8.0	−	−	+	−	+	+	228
110. Kunjen Australian	Australia		−	−	+	−	+	+	228
111. Kwara'ae Austronesian	Solomon Islands	7.0	−	+	+	−	+	−	229
112. Lithuanian Baltic	Lithuania	3,000.0	−	−	−	−	−	−	231
113. Livonian Uralic	Latvia	.5	−	−	−	−	−	−	231
114. Luganda Niger-Kordofanian	Uganda	1,500.0	−	−	+	−	+	−	232
115. Maba Nilo-Saharan	Chad	9.0	−	+	+	−	+	−	233
116. Mae Austronesian	New Hebrides	.2	−	−	+	−	−	−	233
117. Malayalam Dravidian	India	22,000.0	−	−	+	−	−	−	234
118. Mam Penutian	Guatemala	285.0	+	+	−	+	+	−	235
119. Manambu Indo-Pacific	New Guinea	1.5	−	−	−	−	−	−	235
120. Mandarin Sino-Tibetan	North China	400,000.0	+	−	−	−	+	−	236
121. Marankungu Australian	Australia		−	−	+	−	−	−	236
122. Margi Afro-Asiatic	Nigeria	151.0	+	+	+	−	−	+	237
123. Mari Uralic	USSR	622.0	−	−	+	−	+	+	237
124. Maricopa Hokan	USA/Arizona	.3	+	+	−	+	+	−	238

	Name of Language Affiliation	Area	Speakers in Thousands	x	ʔ	ŋ	q	w	γ	Source Ruhlen 1976
125.	Masai Nilo-Saharan	Kenya	190.0	−	−	+	−	+	−	238
126.	Maung Australian	Australia	.2	−	−	+	−	+	+	238
127.	Mbembe Niger-Kordofanian	Nigeria	10.0	−	−	+	−	+	−	240
128.	Mixtec Oto-Manguean	Mexico	250.0	−	+	−	−	−	−	241
129.	Mongolian (Khalka) Mongolian	Mongolia	2,000.0	+	−	+	−	−	−	242
130.	Mordvin Uralic	USSR	1,192.0	−	−	−	−	−	−	242
131.	Morwap Indo-Pacific ?	West Iran	.3	−	−	+	−	+	−	243
132.	Motilon Andean-Equatorial	Colombia	7.0	−	+	−	−	+	−	243
133.	Motlav Austronesian	Banks Islands	.8	−	−	−	−	+	+	243
134.	Muinane Ge-Pano-Carib	Colombia	.2	+	+	−	−	−	−	244
135.	Nanaj Tungus	USSR	10.5	+	−	+	−	−	−	245
136.	Nandi Nilo-Saharan	Kenya	450.0	−	−	+	−	+	−	245
137.	Nasioi Indo-Pacific	Bougainville	10.0	−	+	−	−	−	−	246
138.	Negidal Tungus	USSR	.5	+	−	+	−	+	−	246
139.	Ngarndji Australian	Australia	5.0	−	−	−	−	+	−	247
140.	Ngemba Niger-Kordofanian	Cameroon	11.0	−	+	+	−	+	+	247
141.	Nogai Turkic	USSR	60.0	+	−	+	−	+	+	248
142.	Nubian Nilo-Saharan	Sudan	1,000.0	−	−	+	−	+	−	249
143.	Nuer Nilo-Saharan	Sudan	500.0	−	−	+	−	+	−	249
144.	Nukuoro Austronesian	Nukuoro Islands	.4	+	−	+	−	+	−	249
145.	Nung Austro-Tai	Vietnam	170.0	+	+	+	−	+	−	249
146.	Nunggubuyu Australian	Australia	.4	−	−	+	−	+	−	250
147.	Nyimang Nilo-Saharan	Sudan	37.0	−	−	+	−	+	−	250
148.	Nyulnyul Australian	Australia	.2	−	+	+	−	+	−	250
149.	Ojibwa Macro-Algonquian	Canada	40.0	−	+	−	−	+	−	251
150.	Olcha (Ulcha) Tungus	USSR	2.6	+	−	+	−	−	−	251

Name of Language Affiliate	Area	Speakers in Thousands	Data Group						Source Ruhlen 1976
			x	ʔ	ŋ	q	w	ɣ	
151. Oroch Tungus	USSR	1.2	+	−	+	−	−	+	252
152. Orok Tungus	Sakhalin	.4	+	−	+	−	−	−	252
153. Ossetic Iranian	USSR	542.0	+	−	−	+	+	+	253
154. Ostyak Uralic	USSR	21.0	−	−	+	−	+	+	253
155. Paez Macro-Chibchan	Colombia	20.0	+	+	−	−	+	+	254
156. Paipai Hokan	Mexico	.2	+	+	−	+	−	−	254
157. Palauan Austronesian	Palau Islands	12.0	−	+	+	−	+	−	254
158. Ponapean Austronesian	Ponape	15.0	−	−	+	−	+	−	258
159. Portuguese Romance	Portugal, etc.	100,000.0	−	−	−	−	+	−	258
160. Quechua Andean-Equatorial	Peru	6,000.0	+	−	−	−	+	−	259
161. Quiche Penutian	Guatemala	300.0	+	+	−	+	+	−	260
162. Rarotongan Austronesian	Cook Islands	22.0	−	+	+	−	−	−	260
163. Romany Indic	Diaspora	1,000.0	+	−	−	−	−	+	261
164. Russian Slavic	USSR	113,522.0	+	−	−	−	−	−	261
165. Sanglechi Iranian	Afghanistan	2.5	+	−	−	+	+	−	263
166. Sayanci Afro-Asiatic	Nigeria	50.0	−	−	+	−	+	−	264
167. Selkup Uralic	USSR	3.6	−	−	+	+	+	−	266
168. Shor Turkic	USSR	16.0	−	−	+	−	−	−	267
169. Shugni Iranian	USSR	40.0	+	−	−	+	+	+	267
170. Siane Indo-Pacific	New Guinea	15.0	−	−	−	−	+	−	267
171. Sora Austro-Asiatic	India	350.0	−	+	+	−	−	−	269
172. Spanish (Castilian) Romance	Spain, etc.	200,000.0	+	−	−	−	+	−	269
173. Suena Indo-Pacific	New Guinea	1.4	−	−	−	−	+	−	270
174. Suroi Austronesian ?	New Guinea		−	−	+	−	+	−	270
175. Tamil Dravidian	India, etc.	45,000.0	−	−	+	−	+	−	274
176. Tarascan Isolate	Mexico	50.0	−	?	−	−	+	−	274

Name of Language Affiliate	Area	Speakers in Thousands	Data Group						Source Ruhlen 1976
			x	ʔ	ŋ	q	w	ɣ	
177. Tavgy (Nganasan) Uralic	USSR	.8	–	+	+	–	+	–	275
178. Tegali Niger-Kordofanian	Sudan	5.0	–	–	+	–	+	–	275
179. Telefol Indo-Pacific	New Guinea	4.0	–	–	+	–	+	–	275
180. Temein Nilo-Saharan	Sudan	2.3	–	–	+	–	+	–	276
181. Tepeth Nilo-Saharan	Uganda		–	–	+	–	+	–	276
182. Tera Afro-Asiatic	Nigeria	50.0	+	–	+	–	?	–	276
183. Tigak Austronesian	New Ireland	3.0	–	–	+	–	–	–	278
184. Timucua (+) Isolate	USA/Florida		–	–	–	–	+	–	278
185. Tolai Austronesian	New Ireland	45.0	–	–	–	+	–	–	280
186. Tongoa Austronesian	New Hebrides	2.3	–	+	+	–	–	–	280
187. Totonac (V. Juarez) Penutian	Mexico	100.0	+	+	–	+	+	–	282
188. Tucuna Andean-Equatorial	Brazil	15.0	–	+	+	–	+	–	282
189. Tuva (Tuvan) Turkic	USSR	166.0	+	–	+	–	–	+	283
190. Ulithian Austronesian	Caroline Islands	.6	+	–	+	–	–	–	285
191. Urhobo Niger-Kordofanian	Nigeria	225.0	+	–	–	–	+	+	285
192. Uri Indo-Pacific	New Guinea	2.0	–	–	+	–	+	–	286
193. Vogul Uralic	USSR	6.7	+	–	+	–	+	+	287
194. Votyak Uralic	USSR	714.0	–	–	–	–	–	–	287
195. Wageman Australian	Australia	50.0	–	+	+	–	+	–	287
196. Wakhi Iranian	Afghanistan	5.0	+	–	–	+	+	+	288
197. Wantoat Indo-Pacific	New Guinea	6.0	–	–	+	–	+	–	289
198. Weri Indo-Pacific	New Guinea	3.0	–	–	+	–	+	–	290
199. Wik-Munkan Australian	Australia	.5	–	+	+	–	+	–	291
200. Wolof Niger-Kordofanian	Senegal	1,200.0	–	–	+	+	+	–	292
201. Yanyula Australian	Australia	.2	–	–	+	–	+	–	293
202. Yareba Indo-Pacific	New Guinea	.8	–	–	–	–	+	–	294

Name of Language Affiliate	Area	Speakers in Thousands	Data Group						Source Ruhlen 1976
			x	ʔ	ŋ	q	w	ɣʷ	
203. Yenets (Enets) Uralic	USSR	.4	−	+	−	−	−	−	295
204. Yoruba Niger-Kordofanian	Nigeria	12,000.0	−	−	−	−	−	+	296
205. Yuchi Macro-Siuan	USA/Georgia	.1	−	+	−	−	+	−	296
206. Yukaghir Paleosiberian	USSR	.8	−	−	+	+	+	−	296
207. Yunga Penutian	Peru		+	−	+	−	−	−	297
208. Yupik Eskimo-Aleut	Alaska	20.0	+	−	+	+	+	−	297
209. Yupna Indo-Pacific	New Guinea	4.0	−	−	+	−	+	+	297
210. Yurak Uralic	USSR	30.0	+	+	+	−	+	−	297

Ruhlen's data concerning the number of speakers of the different languages reflect the situation of 1975 when the world population reached the four billion limit. According to my list, the total number of *h*-less speakers of the world at that time amounted to

1,124,167,000

which is 35% of the entire world population. This number is surprisingly close to the percentage. calculated by Ruhlen (36%) on the basis of the *number* of languages recorded in his book (see Ruhlen 1977.142-143). We must leave open the question whether this coincidence is accidental or causal.

Of the 28 language families (phyla) of the world (as listed in Ruhlen 1976.58-145, and in Statistics, p. 134 in this book) only six seem to be thoroughly *h*-containing: Caucasian, Khoisan, Salish, Na-Dene, Aztec-Tanoan, and Wakashan (see Ruhlen 1977.156). A statistical analysis of the remaining 24 phyla (and, in some cases, of their subgroups) leads to the following result concerning *h*-lessness:

Afro-Asiatic

29 languages with ca. 175 million speakers, among them Arabic and Hebrew. According to my list, eight of them are *h*-less: 10[1] Aramaic East (23.0), 51 Dangaleat (16.0, Chad), 67 Ga'anda (10.0, Nigeria), 69 Geleba

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[1] The number before the language name indicates the position in my list, pp. 9-17. Number in parentheses: speaker number in thousands.

(18.0, Ethiopia), 77 Higi (200.0, Nigeria), 122 Margi (151.0, Nigeria), 166 Sayanci (50.0, Nigeria), and 182 Tera (50.0, Nigeria). The total number of the *h*-less speakers is 518.0, i.e., 0.30% of the entire phylum population.

Andean-Equatorial

Out of several hundred languages, Ruhlen 1976 listed 39; eight of them are *h*-less: 7 Amuesha (4.0, Peru), 14 Auca (.2, Ecuador), 84 Jivaro (20.0, Peru), 132 Motilon (7.0, Colombia), 160 Quechua (6,000.0, Peru), Tacuna (15.0, Brazil). The total speaker number of the phylum amounts to ten million (Ruhlen 1976.140). The most important language is Quechua with 8,048.2 *h*-less speakers; i.e., more than 80% of the entire phylum population (this confirms Ruhlen's result, op. cit. 1977.156). Further investigations should clarify whether this extraordinarily high *h*-lessness is the result of a Spanish areal influence. Spanish has been an acrolect in South America since the sixteenth century. An additional factor to be considered is the inability of Spanish grammarians of the area to "hear" and perceive the *h* of the native population.

Austro-Asiatic

Roughly 150 languages with a total of 40 million speakers (Ruhlen 1976.89). Out of the 17 languages listed by Ruhlen, only two are *h*-less: 85 Juang (17.0) and 171 Sora (350.0).

Australian

There are approximately 260 distinct languages (Wurm 1972.9, Ruhlen 1976.99) spoken by ca. 50,000 Aborigines in Australia. All Australian languages are *h*-less; compare in my list 3(—),[1] 31(0.4), 55(—), 58(—), 74(—), 83(—), 86(—), 88(6.0), 92(4.0), 99(0.2), 100(0.3), 102(0.5), 110(—), 121(—), 126(0.2), 139(5.0), 146(0.4), 148(0.2), 195(—), 201(0.2).

Austro-Tai

Approximately 550 languages spoken by ca. 180 million people (Ruhlen 1976.104). Out of 67 registered languages (Ruhlen 1977.156) the following are *h*-less in my list: 12(—), 13(36.0), 28(7.0), 70(44.0), 81(11.0), 87(40.0), 111(7.0), 116(0.2), 133(0.8), 144(0.4), 145(170), 157(12.0), 158(15.0), 162(22.0), 183(3.0), 186(2.3), 190(0.6). Except for Nung (which is Kam-Tai, spoken by 170,000 people in Vietnam, see 145) all units belong to the Austronesian branch of the phylum. Altogether 171,300 people speak *h*-less languages. This is less than 0.1% of the entire phylum population. The main Austronesian language, Bahasa Indonesia (50 million speakers), carries the *h* in its phoneme system.

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[1] For less known phyla no language names are given (i.e., the units are identified only by the position numbers of my list, pp. 9-17).

Baltic

Lithuanian (see 112, 3,000.0). The other still extant Baltic language, Latvian (2,000.0) has an *h* (but only in loanwords).

Celtic

There are four Celtic languages (Breton, Irish, Galic, Welsh) with ca. 2,700.0 speakers (Décsy 1973.291). Only one of them, namely Breton, is *h*-less (1,000.0 speakers); i.e., 37% of the entire group population has no *h*. French areal influence may be responsible for Breton *h*-lessness. See 27 in list.

Dravidian

There are ca. 25 Dravidian languages with 150 million speakers (Ruhlen 1976.83). Ruhlen registered 10 of them with 50% *h*-lessness (Ruhlen 1977.156). According to my list the following are *h*-less: 103 Kolami (67.0), 106 Kota (0.9), 117 Malayalam (22,000.0), 175 Tamil (45,000.0), i.e. four languages spoken altogether by 67,067.9 million people (44.7% of the entire phylum population). Two prominent languages of the group, namely Teluga (50 million speakers) and Kannada (25 million) belong to the *h*-languages.

Eskimo-Aleut

Five languages with a total of 83,000 speakers; *h*-less are 4 Aleut-East (0.6), 79 Inupik (60.0) and 208 Yupik (20.0), i.e. 97% of the entire phylum population. See also Ruhlen 1977.156.

Ge-Pano-Carib

A strongly hypothetical phylum between the Lesser Antilles and South Argentina; approximately 120 languages with 1.5 million speakers. Ruhlen 1977.156 listed 24 languages, six of them as *h*-less (25%). In my list, the following quality as *h*-less: 26(0.4), 35(—), 36(2.0), 38(1.5), 134(0.2). The total speaker number is 41,000, in percentage 2.8% (of 1.5 million). Assumably, a considerable number of unlisted languages (in Ruhlen close to 100) are also *h*-less. The question arises, whether the *h*-lessness can be interpreted as the result of Spanish acrolect influence (see remarks at Andean-Equatorial above).

Germanic

57 Dutch/Flemish (20,000.0). The *h*-lessness is controversial, see remark in the list (position number 57). The absence of *h* (if any) is new; areally, the *h*-lessness must be connected with French.

Greek

72 Greek (8,000.0). Classical Greek had an *h* (spiritus asper, only in initial position). The loss of the *h* is the result of an accommodation of Greek to the Balkan Language Alliance (Balkanbund, see Décsy 1973.105-123).

Hokan

Approximately 20 languages and 37,000 speakers, mostly in the Western United States, partly also in South Mexico and Honduras. Ruhlen's *h*-lessness quotient is 32% (Ruhlen 1977.156). In my list, 40(9.5), 47(1.0), 53(0.2), 124(0.3), 156(0.2), a total of five languages (25%) and 17,000 speakers (46% of the entire phylum population) are *h*-less. Most Hokan languages are located in the English acrolect area, therefore a misperception by grammarians (with English as native language) can be excluded; thus, *h*-lessness seems to be "genuine" here.

Indic

163 (1,000.0). Romany (Gipsy) seems to be the only *h*-less Indic language. Supposedly, the Gipsies lost their (original) Indic *h* during their migration from West India to Central and Western Europe through *h*-less areas (Turkic in Anatolia, New Greek, Bulgarian, Balkan *Sprachbund*; Vulgar Latin in Italy, Spain, France). However, in *h*-areas (Rumania, Hungary) they reintroduced *h* in loanwords. The question should be thoroughly investigated. Today there are "roughly 35 Indic languages spoken in north and central India, as well in Pakistan by over 400 million people" (Ruhlen 1976.70-71), apparently all having an *h*. The secondary *h*-lessness of the Gipsies is statistically negligible.

Indo-Pacific

One of the widespread phyla of Oceania, with an estimated 700 languages spoken by not more than two and a half million people in New Guinea and the neighboring islands (Ruhlen 1976.94). Ruhlen listed 50 languages; 33 of them (66%) have no *h* (Ruhlen 1977.156). According to my list the following are *h*-less: 9(1.3), 15(5.0), 16(1.0), 17(—), 20(4.0), 23(—), 25(1.9), 29(9.0), 39(120.0), 52(1.0), 60(150.0), 65(12.0), 68(7.0), 78(8.0), 91(10.0), 94(8.0), 96(47.0), 109(8.0), 119(1.5), 137(10.0), 170(15.0), 173(1.4), 179(4.0), 192(2.0), 197(6.0), 198(3.0), 202(0.8), 209(4.0). This is a total of 28 languages with 295,100 speakers (11.8% of the estimated entire phylum population). However, a large number of unlisted languages (Ruhlen registered only about 50 of an estimated 700) could also be *h*-less. The strongly *h*-less Australian phylum makes the high percentage of *h*-absence in the adjacent Indo-Pacific stock entirely understandable. The presence and not the absence of the *h* is remarkable in the territory of this phylum.

Iranian

This sub-branch of the Indo-European language family comprises "roughly twenty languages with fifty million speakers" (Ruhlen 1976.51). According to my list the following are *h*-less: 19 Baluchi (2,000.0), 153 Ossetic (542.0), 165 Sanglechi (2.5), 169 Shugni (40.0), and 196 Wakhi (5.0). The number of "*h*-less speakers" is 2,589.5 (i.e. 5.2% of the entire sub-branch population). Most Iranian people are Islamic using Arabic (a strong *h*-language) as "lingua sacra". A large part of their *h* occurs in Arabic loanwords. However, internal developments also lead to *h* (as in Indic, where Proto-Indo-European *gh* > *h*, see Szemerényi 1970.53).

Macro-Algonquian

Approximately 20 languages with ca. 150,000 speakers (Ruhlen 1976.123). Out of 13 languages listed in Ruhlen only two are *h*-less: 24 Blackfoot (5.0) and 149 Ojibwa (40.0) with a total speaker number of 45,000. Ruhlen calculated a 15% *h*-lessness on the basis of the number of listed languages (Ruhlen 1977.156). With a total speaker number of 150,000, 30% of the phylum is *h*-less (due to the high speaker number of Ojibwa which was originally spoken in French areas of North America; therefore, its *h*-lessness can have been induced by areal influence).

Macro-Chibchan

Ten languages with an estimated 80,000 speakers (Ruhlen 1976.136-137, Voegelin 1977.112-113). Only one is *h*-less: 155 Paez (20.0 in Colombia). Ruhlen 1977.156 indicated 10% *h*-lessness (based on the number of languages). Since Paez is a relatively large language (20,000 speakers), the *h*-lessness based on the total number of speakers (80,000) is 25%; Spanish areal connection may have played a role.

Macro-Siouan

Eighteen languages with an estimated 38,000 speakers (Ruhlen 1976.127). Ruhlen 1977.156 indicated 8% *h*-lessness (of 12 languages in his list only one has been found *h*-less, Yuchi in Georgia with about 100 speakers). This represents 0.26% of the total phylum population, which is statistically negligible.

Mongolian

Approximately eight languages with 3.5 million speakers (estimated). The predominant languages of the phylum are *h*-less: 32 Buryat (353.0) and 129 Khalka (also called Proper Mongolian, 2,000.0). Ruhlen 1976 listed only two languages of the phylum. In several small languages we find an *h* in initial position (where generally, *s* > *h* took place) as the result of newer developments. Buryat has a pharyngeal (transcribed as *h,* see Bertagayev 1968.16) and Kalmyk a ɣ (*gh*) which is also often transcribed as *h* (Todayeva

1968.36). Historically, the entire Mongolian group is to be regarded as *h*-less (personal communication of Prof. John R. Krueger, Bloomington, Indiana). The secondary *h* could have been conveyed by Tibetan or Arabic into Mongolian languages; both Tibetan and Arabic are strong *h*-languages which served as linguae sacrae in Mongol territories.

Niger-Kordofanian

There are approximately 900 languages with an estimated 180 million speakers (Ruhlen 1976.62). Ruhlen 1977.156 listed 51 languages, 25 of which were *h*-less. In my list, the following are *h*-less: 21(5.0), 48(300.0), 59(2,000.0), 61(120.0), 63(1,700.0), 64(93.0), 71(50.0), 75(255.0), 93(6.0), 101(24.0), 107(500.0), 108(100.0), 114(1,500.0), 127(10.0), 140(11.0), 178(5.0), 191(225.0), 200(1,200.0), 204(12,000.0). Swahili (15,000.0) is an *h*-language (Ruhlen 1976.271). Most Bantu languages seem to have an *h* (see Balanta in: Ruhlen 1976.165) which assigns ca. 55 million speakers to the group of *h*-languages. Thus, the quotient of 50% or so (offered by Ruhlen 1977.156) seems to be realistic also on the basis of the entire phylum speaker number. Nevertheless, additional investigations are necessary concerning the *h*, especially with regard to possible areal influences in Arabic and French acrolect areas.

Nilo-Saharan

According to I. Fodor this phylum is the "least convincing" among the four African macro-families (the other three being Afro-Asiatic, Niger-Kordofanian and Khoisan, see Voegelin 1978.265). Ruhlen 1976.64 estimated "25 to 30 million speakers" in east and east central Africa; however, he has no data concerning the number of the languages in this phylum. In my estimate, it lies between 100 and 500. Out of 25 languages listed in Ruhlen 1977.156, the following were *h*-less: 90(2,000.0), 115(9.0), 125(190.0), 136(450.0), 142(1,000.0), 143(500.0), 147(37.0), 180(2.3), 181(—), altogether 4,188,300 speakers (14% of the estimated 30 million entire phylum population). On the basis of the number of listed languages Ruhlen 1977.156 indicated an *h*-lessness quotient of 36%. Supposedly, a large number of the unregistered Nilo-Saharan languages are *h*-less.

Oto-Manguean

"Approximately 30 different languages are still extant, with a total population of over a million people" (Ruhlen 1976.134). Ruhlen 1977.157 listed 14 languages of this phylum; as stated by Ruhlen, all of them have an *h*. In my list only one language (128 Mixtec, 250,000 speakers) occurs as *h*-less; actually, Mixtec has an *h*, but only marginally (Ruhlen 1976.241). Its *h*-lessness seems to be the result of Spanish areal influence. Statistically, the case is not of high importance.

Paleosiberian

Eight languages, six of them *h*-less: 6 Alutor (—), 44 Chukchi[1] (20,000.0), 89 Kamchadal[1] (0.4), 95 Ket (—), 105 Koryak[1] (6.0), 206 Yukaghir (0.8), altogether 27,200 speakers. Gilyak (3,000) and Kerek (0.1) have *h* (Ruhlen 1976.199, and 220). The internal kinship of the eight units has not yet been proven.[1] They could be listed also, partly, as isolates (see below). Ruhlen 1977.156 indicated an *h*-lessness quotient of 75% for this "phylum" (based on the number of languages). According to my data, 89.7% of the entire phylum population is *h*-less. The *h* in Gilyak could be the result of Japanese acrolect influence. Historically, the Paleosiberian group is decidedly *h*-less.

Penutian

"Its 58 languages are spoken by some 2.6 million people" (Ruhlen 1976.129). Ruhlen 1977.156 listed 43 units, 11 of which (i.e., 26%) were in his counting *h*-less. According to my list, the following are *h*-less: 1 Achi (12.0), 2 Aguácatec (8.0), 11 Araucanian (200.0), 41 Chorti (33.0), 82 Ixil (25.0), 118 Mam (285.0), 161 Quiche (300.0), 187 Totonac (100.0) and 207 Yunga (—), a total of 963,000 speakers, i.e. 37% of the entire phylum population. All *h*-less languages are spoken in Spanish acrolect areas (Chile, Guatemala, Mexico, Peru). The *h*-lessness seems to be secondary here (Spanish influence); the Penutian languages spoken in the United States (California, Oregon, Washington, New Mexico) and in Canada (British Columbia) have an *h*.

Romance

According to Ruhlen's data, there are 464.5 million people speaking one of the seven Romance languages as vernacular. Six of the seven languages are *h*-less (444.5 million speakers). These are: 37 Catalan (5,000,000) 66 French (55,000,000), 76 Haitian (4,500,000), 80 Italian (60,000,000), 159 Portugal (100,000,000) and 172 Spanish (200,000,000). This was roughly 9% of the world population (as of 1975). Rumanian (including Moldavian) is the only Romance language with *h*. The Classical Latin *h* began to disappear as early as the first century B.C. (*prehendo* > *prendo, nihil* > *nil*; Vossler 1953.98). The six Romance languages are exemplary representatives of a thorough *h*-lessness. Rumanian has reintroduced *h* with its Slavic borrowings since approximately the tenth century A.D. (Slavic *chrana* > Rumanian *hrană*, see Petrovici 1957.41). The existence of *h* links contemporary Rumanian with Hungarian and German as well as with the Western Slavic languages.

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[1] Chukchi, Kamchadal and Koryak are closely related to each other. Jakobson 1957.221.

Sino-Tibetan

Ruhlen 1977.156 listed 18 languages of which only Dungan and Mandarin are *h*-less. The entire stock consists of more than 300 languages with about 700 million speakers (as of 1975). According to a 1975 estimate, Mandarin had 400 million speakers (see No. 120 in my list) and Dungan 23,000 (No. 56). For details, see Ruhlen 1976.86. Ruhlen 1977.156 indicated an *h*-lessness of 11% for Sino-Tibetan (on the basis of the number of listed languages). Calculations based on the speaker number lead to 57% (because of the exceptionally high number of Mandarin speakers). Some widespread Sino-Tibetan languages (dialects) have *h*, such as Wu (46 million), Cantonese (27 million), Hsiang (26 million), Hakka (20 million), Min (two dialects, 22 million), Kan (13 million), Burmese (15 million), Tibetan (four million). The *h*-lessness connects Mandarin (North Chinese) with numerous language groups of North Eurasia which likewise have no *h* (Mongolian, Turkic, Tungus, Uralic, Russian).

Slavic

By 1975 roughly 232 million people spoke 12 different Slavic languages in Eastern Europe and in North Eurasia (Décsy 1973.290). The following are *h*-less: 30 Bulgarian (8,000.0), 33 Byelorussian (10,000.0), 164 Russian (113,522.0), altogether 131,522 million speakers, i.e. 56.7% of the entire language family. Before the twelfth century all Slavic languages were *h*-less.

Tungus

According to Ruhlen's list the following are *h*-less: 62 Evenki (24.0), 135 Nanaj (10.5), 138 Negidal (0.5), 150 Olcha (2.6), 151 Oroch (1.2) and 152 Orok (0.4); altogether six languages with 39,200 speakers. The *h*-languages include Even (7.3, Ruhlen 1976.193), Manchu/Shibe (40.0) and Udihe (1.4, Ruhlen 1976.284), i.e. three languages with 47,700 speakers, all in the east (East Siberia, Khabarovsk, Manchuria) in Japanese/Korean influence areas (both Japanese and Korean are *h*-languages). The *h* of Even, Manchu/Sibe and Udihe could be interpreted as pharyngeal (Novikova 1968.89, Sunik 1968.213). Language number *h*-lessness (six out of nine) 66%, speaker number based on *h*-lessness (39,200 out of 86,900) 45.1%. Historically, the *h* in East Tungus must be secondary.

Turkic

"Roughly 20 languages and 66 million speakers" (Ruhlen 1976.80). According to the list of Ruhlen, the following are *h*-less: 5 Altai (48.0), 45 Chulym (48.0), 46 Chuvash (1,500.0), 97 Khakas (48.0), 98 Kirghiz (1,500.0), 141 Nogai (60.0), 168 Shor (16.0), 189 Tuva (166.0). Eight languages out of 20 (40%) and 3,386,000 speakers out of 66 million (5.13%) are *h*-less. Old Turkic was *h*-less (Gabain 1974.52). Most *h*-languages of the Turkic group are to be found in the Islamic domain, and the *h* was carried with Arabic and Persian loanwords into the originally *h*-less native strata. Ruhlen listed *h* for Yakut (Ruhlen 1976.293); according to Ubrjatova 1966.406 the Yakut *h* is a pharyngeal and not a laryngeal. I followed Ruhlen's qualification.

Uralic

Thirteen idioms belong to the Finno-Ugric sub-branch, seven of them are *h*-less: 104 Komi (with Permjak, 500.0), 113 Livonian (0.5), 123 Mari (Cheremis, 622.0), 130 Mordvin (1,192.0), 154 Ostyak (21.0), 193 Vogul (6.7), 194 Votyak (714.0), altogether 3,056,200 speakers, i.e. 13.3% of the entire sub-branch population. The Samoyed sub-branch is completely *h*-less: 167 Selkup (3.6), 177 Tawgy (0.8), 203 Yenets (0.4) and 210 Yurak (30.0), altogether 34,800 speakers. Proto-Uralic (spoken in the fourth millenium B.C. in the Ural-Volga area) was *h*-less; Finnish and the other Balto-Finnic languages introduced the *h* during the Proto-Finnic era (around 500 A.D.) with German loanwords. The Lapp *h* is also secondary, younger than the Finnic *h*, introduced with Finnish and Scandinavian borrowings (Korhonen 1981.134). In Hungarian, the *h* appeared from the twelfth century onward. The *h* of Livonian was eliminated in the nineteenth century; the *h* is eroding in spoken Estonian as well (however, the spelling tends to conserve it).

Unqualifiables and Isolates

The following five languages listed by Ruhlen could not be assigned to any genetic group: 22 Basque (700.0), 34 Camsa (—, in Colombia), 131 Morwap (0.3, in West Irian), 174 Suroi (—, New Guinea) and 184 Timucua (—, Florida).

I tabulated the data concerning world *h*-lessness in the different phyla of the earth in Statistics 3.4 and 3.5 to which I refer the reader. Although my investigation is based only on about 700 languages of the world (see Ruhlen 1976.153-299 and 1979), the data are representative for global *h*-lessness. The ca. 2,100 languages not included in the corpus (unlisted idioms) are spoken by not more than 2.5 to 5.0% (estimated) of the world population (close to four billion in 1975). Apparently, they do not display such features concerning *h* which are not known in the 700 listed and phonemically well described languages (spoken by more than 95% of the world population).

We can now point out the following mega-areals (megareals) of *h*-lessness in a global view of the five continents:

Continental Western Europe

This Large Area is characterized by the major Romance acrolects: French, Spanish, Portuguese, and Italian. It includes Basque and Breton, and some Dutch (Flemish) dialects in the southern Netherlandish area. The *h*-lessness of Breton, and of the Basque as well, is probably the result of an areal adaptation caused by the influx of Romance. All Germanic and Island Celtic languages, except for Breton and (partly) Dutch, have *h* in their phoneme inventory. The main concentration area of *h*-lessness in continental Western Europe is the Romance language territory. The *h*-isogloss in this area historically marks the border between the Germanic and Romance languages. The *h*-lessness of the Romance languages is an innovation: they were preceded by Latin which did possess an *h*.

Eastern Eurasia

The most important *h*-less units of this vast area are Russian (as an acrolect) and Mandarin. The westernmost units are Lithuanian, Byelorussian, Rumanian, Bulgarian, and modern Greek. The *h* is new in many languages between the Russian and Germanic territories (Lapp, Finnish, Latvian, Polish, Ukrainian, Czech, Slovak, Hungarian, Serbo-croatian, Slovene). Albanian is also an *h*-language. Classical Greek had an *h* (spiritus asper) in initial position, but it was lost in subsequent stages of development. The Uralic and Altaic languages were originally *h*-less (see Menges 1968.81). In Old Turkic *h* is found only in loanwords (see v. Gabain 1974.51). The Eastern Balkan *h*-lessness (Rumanian, Bulgarian, and some Greek) may have two sources: Common Slavic and Balkan Vulgar Latin (East Vulgar Latin). The *h* of Modern Turkish (Osmanic) is apparently an Arabic-Persian loan-element. Although Osmanic (a "strong" *h*-language) greatly influenced Greek and Bulgarian between the sixteenth and nineteenth centuries, it did not introduct *h* into these idioms. The *h*-lessness in Chinese is apparently limited to the northern part of the area (Mandarin). The internal dialectal isoglosses of the *h*-lessness in Chinese are not clear, but the southern acrolects or mesolects (Cantonese, Hakka, and Wu) possess a consonant *h*. It is not clear whether the absence of *h* in (North) Chinese is a substratum phenomenon connecting this language with the (original) genuine *h*-lessness of the Mongolian-Tungus languages (or, generally, with the Uralic-Altaic *h*-lessness).

Dravidian

The consonant *h* is rare among the Dravidian languages (67 million speakers). The environmental influences, as well as the historical background concerning the absence of laryngeals in this area, can be determined only by special investigations. The *h*-lessness seems to be limited to the Central and South Dravidian languages which may not have been as strongly influenced by *h*-ful Sanskrit as were the dialects of (North) India.

Afro-Oceanic

This is a mega-group of genetically and strongly diversified languages between Nigeria (the west coast of Africa) and the Philippines and Hawaii belonging to the families Niger-Kordofanian, Austro-Tai, Nilo-Saharan, Afro-Asiatic, Austronesian, Australian, and Indo-Pacific. Within this group, the languages of the native Australians (see above) form a compact *h*-less unit. In some areas, the *h*-lessness of the native languages can be explained by the influence of *h*-less European acrolects (French in Africa and Dutch in New Guinea). It is noteworthy that in the Philippine Islands, which have been dominated by the *h*-less Spanish acrolect since the sixteenth century, only two native languages (both Austro-Tai) have been found without *h*: 81 Itavan and 87 Kalinga (altogether, 51,000 speakers).

The Americas

The native languages of the New World are *h*-ful: Ruhlen 1977.143 stated that 81% of the languages have an *h* or an *ħ* (counting laryngeals and pharyngeals together). On the basis of my list, I found the following languages of the New World *h*-less (listed in alphabetical order of the countries).

Name of Country	Phylum	Number of Speakers
Bolivia (1)		
Guarani	Andean-Equatorial	2,000.0
Brazil (3)		
26 Bororo	Ge-Pano-Carib	0.4
38 Cayapo	Ge-Pano-Carib	1.5
188 Tucuna	Andean-Equatorial	15.0
	Total	16.9
Canada (1)		
149 Ojibwe	Macro-Algonquian	40.0
Chile (1)		
11 Araucanian	Penutian	200.0
Ecuador (1)		
14 Auca	Andean-Equatorial	0.2
Colombia (4)		
34 Camsa	Unqualified	——
132 Motilon	Andean-Equatorial	7.0
134 Muinane	Ge-Pano-Carib	0.2
155 Paez	Macro-Chibchan	20.0
	Total	27.2

Name of the Country	Phylum	Number of Speakers
Guatemala (7)		
1 Achi	Penutian	12.0
2 Aguacatec	Penutian	8.0
41 Chorti	Penutian	33.0
43 Chuj	Penutian	14.0
82 Ixil	Penutian	25.0
118 Mam	Penutian	285.0
161 Quiche	Penutian	300.0
	Total	677.0
Mexico (6)		
40 Chontal	Hokan	9.0
53 Diegueno	Hokan	0.2
128 Mixtec	Oto-Manguean	250.0
156 Paipai	Hokan	0.2
176 Tarascan	Isolate	50.0
187 Totonac	Penutian	100.0
	Total	409.4
Peru (6)		
18 Aymara	Andean-Equatorial	2.0
35 Cashibo	Ge-Pano-Carib	——
36 Cashinawa	Ge-Pano-Carib	2.0
84 Jivaro	Andean-Equatorial	20.0
160 Quechua[1]	Penutian	6,000.0
207 Yunga	Penutian	——
	Total	6,024.0
USA (6) (in alphabetical order of the states)		
Alaska (2)		
4 Aleut	Eskimo-Aleut	0.6
208 Yupik	Eskimo-Aleut	20.0
Arizona		
47 Cocopa	Hokan	1.0
124 Maricopa	Hokan	0.3
Florida		
184 Timucua	Isolate	——
Georgia		
205 Yuchi	Macro-Siouan	——
Montana		
24 Blackfoot	Macro-Algonquian	5.0
	Total	26.9

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[1] Also in Bolivia (1.5 million) and Ecuador (2 million); Quechua is official only in Peru (besides Spanish).

According to this, in the New World 9,385,600 people (native Americans) spoke *h*-less languages (as of 1975). Not counted are, of course, New-World Spanish and New-World Portuguese as well as French. We estimate that the native speaker population (aborigines) of the Americas was 22 million in the same year. This means that 42.7% of the original population of the New World is *h*-less (Ruhlen 1977.143 calculated 20% on the basis of the number of listed languages). There are more *h*-less native speakers in South America than in North America. The United States and Canada had 86,900 and Mexico 409,400 *h*-less native speakers (altogether 496,300 persons), all of them at meso- and basilect levels. 8,889,300 *h*-less speakers lived in South America (i.e. 94.7% of the entire native American *h*-less population there). The main *h*-less representative is Quechua in Peru, Bolivia, and Ecuador (six million speakers). We leave the question open whether the high percentage *h*-lessness of the native American population is the result of Spanish/Portuguese acrolect influx or of internal development.

At this point the question arises: how conclusive is this investigation concerning the phaseological status of the *h*? Is the absence or the presence of the *h* archaic? My assumption is that *h* is very ancient; it is one of the main realizations of the Basic Laryngeal Noise (Entry 006). In my opinion, all languages of the world originally must have had an *h*, a glottal stop or a pharyngeal. After the introduction of the more sophisticated supralaryngeal/supraglottical fine-modulative articulation techniques (in the tongue, tooth, and lip area, etc.), however, the old fashioned laryngeal consonants (*h*, glottal stop, etc.) were eliminated as "excess baggage" from the phoneme inventory of many languages of the world. The person who has a car will not ride a bicycle. Later on, the *h* became a kind of "caprice" of the phoneme inventory: as a poorly marked generic element, it could be reintroduced and dropped again and again according to rules or needs we are not always able to identify. The absence of the *h* was certainly an innovation in very early times; however, its appearance can also be viewed as a "novelty" (as in Rumanian, see Ruhlen 1979), especially in later stages of development. The *h* is the incarnation of the markedlessness, and as such an element, it can be present as a kind of "additive" in languages which formally do not carry it in their phoneme systems. The strong post-aspiration of *p, t, k* in Mandarin (Gouyu, see Peking 1971.7) could be regarded as a complementary substitutve feature of phonemic *h*-lessness. The aspirated pronunciation of *p, t, k* in English and High German (even in non-initial position, where *h* generally does not occur) also manifests a kind of "omnipresence" of this "fossil" consonant in an unexpected phonetic environment. The *h* is a kind of Faustian element of human sound production; it somehow seems to be present in every bit sound men utter (Mephistopheles-effect). We expect that in the not very distant future the insight will pervade: *h ubique et semper*—a kind of *h* can be found as a "hidden element" in all idioms of the world—even in the *h*-less languages.

Remarks on Global *h*-lessness[1]

By Merritt Ruhlen

I am sending you with this letter an offprint of an article of mine which appeared several years ago. In it I surveyed a number of linguistic parameters on a global basis, one of which was glottal fricatives (cf. pp. 142-3 & 156).[2] My figures differ somewhat from your own; I found 248 '*h*-less' languages out of a sample of 693 languages. I eliminated about a dozen languages from the total sample of 706 given in my *Guide* so that I would not have more than one dialect for any one language. Re-examination of my *Guide* reveals the differences between your 192 languages and my 248 to be due to two main factors: (1) I counted as '*h*-less' some 23 languages which have *h* only marginally (e.g. in loanwords, of very rare occurrence, etc.), while you counted these as *h*-languages. These languages are: Apinaye, Asmat, Baule, Ebrie, Eddystone, Gbari, Ibanag, Ijo, Kalagan, Latvian, Madurese, South Paiute, Pampangan, Parji, Samoan, Shilha, Teco, Crimean Turkish, Udihe, Yapese, Yazghulami, Yogad, Zande. (2) Furthermore, I list the following 24 languages as *h*-less, whereas you do not: Arosi, Atayal, Aymara, Blackfoot, Buryat, Capanahua, Chipewyan (Slave), Dan, Friulan, Gascon, Ixil, Juat, Kamchadal, Khirghiz, Kitja, Masai, Nyulnyul, Polish, Provencal, Serbo-Croatian, Ukrainian, Ulithian, Yupik, Yukaghir. Polish and Ukrainian you have elminated on purpose, but I wonder whether at least some of the above were not left out by accident?

Let me turn now to some points of detail: p. 3[3]/line 4: Romanian (better R*u*manian) is not *h*-less; it did lose the Latin *h* like the other Romance languages, but *h* was reintroduced, mainly in Slavic loanwords, by the end of the 1st millenium A.D. In contemporary Rumanian *h* is found in numerous common words: *hoţ* 'thief', *hrean* 'horseradish', *hai* 'Let's go!', *haină* 'coat', *hartă* 'map', and many more. It is also found in syllable-final position, where it is still spelled *h*, though usually pronounced as a velar fricative: *duh* [dux] 'soul'.

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[1] These remarks of Dr. Ruhlen, made in a letter of June 23, 1979, concern the first version of my "Preliminary List" (see pp. 9-17 in this book). They convey notable insight; therefore I included them (in a somewhat shortened form) in this publication. Dr. Ruhlen agreed and read the proofs.

[2] See Ruhlen 1977 (in References).

[3] The page numbers refer to the original version of the manuscript.

p. 3: *h* is, as you emphasized, very unstable. In the natural erosion of sounds *h* is often the last stage before total disappearance, as you point out later in the article. In terms of markedness we might say that *h* is the least marked consonant. These factors obviously mesh nicely with your claim that *h* was the original human consonant.

p. 4: The number of distinct languages in the world is certainly difficult to determine, both because of the indeterminacy of the language/dialect line and our lack of good information on certain parts of the world. Nevertheless, I believe the 2,800 you estimate is too low. I now tend to think of 5,000 (±500) as the most reasonable approximation.

p. 5: "The approximately 2100 Unregistered Languages. . .have little statistical importance." This is a very important point, the consequences of which are often not fully appreciated. For an interesting discussion of language sampling, see Don Sherman, "Stop and Fricative Systems: A Discussion of Paradigmatic Gaps and the Question of Language Sampling," *Working Papers on Language Universals* 17 (1975), 1-31.

pp. 11-12: Some of your figures in chart 2 perplex me. For example, under Indo-Pacific you state that *h* is absent in 31 languages out of an estimated 700 languages, or 4.42%. But actually my data imply that *h* is absent from 31 (33 according to my count, see enclosed article, p. 156) of 50, or something above 60%. Certainly many of the 650 Indo-Pacific languages I did not list will be found to be *h*-less. This same problem affects the other families in Chart 2 also.

p. 23: In addition to Latvian and Finnish, Rumanian might be added here as a language which has had *h* introduced through foreign borrowings.

p. 23: Other sources for *h* include *f, x, ʔ*. Your use of *kh* throughout the article is a little disconcerting, as I am often unsure whether you have in mind an aspirated velar stop or a voiceless velar fricative, both of which often wind up as *h*, though probably in most cases through the progression *kh* > *x* > *h*.

p. 24: "Some arbitrariness is unavoidable in such cases." Amen! But as you correctly point out the inevitable 'margin of error' which affects all aspects of a work of this scope in no way undermines the reliability of the general patterns which stand out clearly.

I think you might mention somewhere in the article the problem of determining, from the linguistic literature, what is and what is not an *h* sound. Here are a few of the problems I encountered. First of all, *h* and its voiced partner *ɦ* are often called 'pharyngeal' in the literature, despite the fact that true pharyngeal fricatives (*ħ*, ʕ) are not the same sounds as the glottal fricatives which form the subject of your article. Usually it is possible to tell whether an author really means pharyngeal in its proper sense or not, but in a small number of cases I have simply not been sure. It is likely therefore that some of my *ħ*'s should really be *h*'s. A second problem lies in the precise phonetic characterization of *h*. In many languages *h* has a special relationship with *x*; they may, as in Rumanian, be allophones of the same phoneme. Or they may be in free variation, either on an individual or sociolinguistic basis. What this means is that it is not always easy to tell whether a language should be considered to have an *h* and/or *x*. Again a small margin of error is introduced.

Comments on *h*-lessness[1]

By Anonymous

pp. 1-2: "I assume that..."; "We suppose that..."; "...may have come into being" — what evidence is there?

p. 2: "high chronological priority" — does this mean that more languages used to have *h* than formerly, or what? How could such a claim be proven? Could the impression that many prehistoric languages have laryngeals be merely an artifact of our reconstructions? (We don't really know of course, whether the IE "laryngeals" were *phonetically* laryngeals.)

p. 3: It's misleading to speak of Chinese, and "all...Romance" as *h*-less, since Mandarin and Spanish both have phonemes which vary from [x] to [h] in certain dialects and/or styles. Other languages too raise the problem of what is to *count* as an *h*.

p. 4: Why is *h*-lessness fascinating, if (as stated on p. 3) *h*'s come and go so easily? The motivation for this whole paper is very unclear.

Ibid.: Ruhlen's *Guide* is a very dubious basis for any survey such as this. First, it is not a systematic sample; second, Ruhlen's interpretations of the literature he consulted are often open to criticism.

Ibid.: "*Prince* Trubetzkoy" is the usual English translation of Russian *knjaź*.

pp. 6 ff.: The possible significance of these statistics is never made evident.

p. 6: A genetic unit "Indo-Pacific" is accepted by hardly anyone except its creator, Joseph Greenberg (who was Ruhlen's mentor).

Ibid.: under IE; Dutch surely has *h*! Page 24 does not explain what "articulatory peculiarities" would lead one to think otherwise.

p. 8: The extension of Penutian to Chile and Peru is not generally accepted. Many U.S. Penutian languages (i.e. in California) had Spanish as "acrolect" for a century, but did not lose *h*.

p. 9, under Afro-Asiatic: Sora in India is Munda (Austro-Asiatic), not "Afro-Asiatic."

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[1] The comments were written in 1979; they refer to the original version of my *h*-lessness manuscript. The remarks made in a letter to me are incentive; therefore, I decided to publish them in this book.

p. 9, Dravidian: Many varieties of Malayalam and Tamil have *h* in loanwords — how to handle such facts?

p. 10: I am left wondering why, in these tabulations, some small, well-defined families like Tungus (surely classifiable as Ural-Altaic) are coordinate with huge, totally speculative groupings like "Gepanoca".

pp. 14 ff.: What possible significance can be attached to the occurrence of *h*-less languages in such recently-formed, arbitrarily-bounded, politically-defined areas such as Arizona?

pp. 20-21: In Dravidian, the standard form of the Kanarese language (ca. 20 million speakers) has *h*.

p. 22: "all languages must originally have had an *h*" — a totally vacuous statement. In addition, there is no suggestion as to why some languages should retain the "old-fashioned" *h* for millenia.

End: The paper offers virtually no conclusions or explanations. Furthermore, it never clarifies exactly what counts as an *h*. What about voiced [ɦ], e.g. in Czech and in many languages of India? It tends to develop from voiced consonants, and in some languages alternates with [g]; but if we decline to count it as an *h*, how do you handle languages where voiced and voiceless *h* are allophones of a single phoneme? And how do you count cases where [h] and [ʔ] are allophones of a single phoneme, as in some Algonquian languages?

Remarks of the author to the comments of An Anonymous: The sound value of [g] is, apparently ɣ (or, written in some cases: *gh*). I find this letter neither in the *International Phonetic Alphabet*, nor in Ruhlen 1976.55. The problem of the sonority correlation for *h* does not display any special relevance in the ramification of this article, and not even in the mentioned languages (for Czech and Slovak see Hála 1960.35 and 38; for Finnish and Hungarian Sovijärvi in: Kaiser 1957.317). A strongly differentiated laryngeal/pharyngeal group of voiced/voiceless stops and spirants exists in Arabic (Al-Ani 1970). The "many languages of India" could have borrowed their *h* (especially in Muslim areas) from Arabic. Dealing with the corresponding phonetic details would have distracted attention from our main topic: the *h*-lessness in a *global* ramification (see also Entry 006, p. 40). — Gy. Décsy

2. Entries to a Linguistic Dictionary of the ‘80s/‘90s

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001 Altaic Languages Nature, including languages, does not fit itself into exact categories; consequently, since languages are subject to very many influences throughout history by reason of neighbors, development and emphasis, one cannot always assign specific languages to hardbound groups (typological models) like “agglutinative” or “inflecting.”

What is current thinking about the relationships among the languages of the Altaic phylum or superstock? The Turkic family, the Mongolian family and the Manchu-Tunguz family stand unchallenged as groups, but can they be united under one banner and proven to be descendants of an ancestor?

There are definitely strong structural patterns and resemblances running through each group making up the Altaic phylum. Extensive cultural contacts, on several diachronic levels of early, middle and late, have left loanwords, and perhaps even borrowed morphological features which participate in sound regularities, changes and correspondences. This certainly readily creates an appearance of ultimate genetic linkage.

However, other features weigh against this. Turkic languages have a highly developed verbal system, and from earliest times had full expression of person and number. Mongolian and Manchu-Tunguz do not have such extensive verbal development, and no trace of a personal-ending system (though in Buriat and Kalmyk of recent centuries, the postposed personal pronouns have fused with the verb, evolving such a system). In like manner, Turkic languages along with Finno-Ugric, have a system of possessive endings, a feature quite lacking from Mongolian and Manchu-Tunguz, except where it is a recent development. To judge from other language families, it certainly seems strange to find such features so well developed in one branch and so absent in the others. Opposing this however, the number, form and use of cases is in general terms rather similar in all three divisions, and there are many parallel usages in syntax, idiom and imagery.

Believing in the Altaic theory today may be likened to believing in the god or God of a particular religion: ultimately, it becomes an act of faith, not susceptible to scientific or philosophical proof. If it helps one personally to think of a Creator or first cause, I cannot quarrel with that freedom of choice; similarly, even if one cannot prove an ultimate genetic affinity of the Altaic divisions, it may still prove a valid belief as a basis for scientific activity. Astronomy, chemistry and physics all made advances in knowledge even when based on ideas that have since been refined, expanded and discarded.

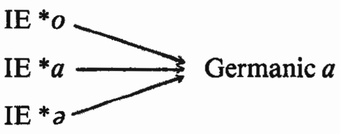
If, following Jakobson, we assign language similarities to genetic, structural and areal origins, to which "coincidental" has also been proposed, in my view, at the present time, the structural approach serves best to fit the known similarities to the known facts. However, this does not rule out the possibility of a deep-seated genetic origin also yielding evidence. Areal spread of features beyond a doubt has also played its role. Finally, in linguistics we have no firm criteria of definition, in the sense that choices of when words, forms and meanings are alike, related or derived may ultimately be a subjective decision of the definer. — J. R. Krueger

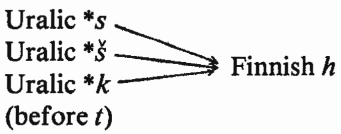
002 Anti-Iconism is a powerful factor in the operation of human communication. A sign can be iconic at its creation or rise; however, in practical use, it very soon becomes a symbol (Entry 036). This "transfiguration" has partly psychological, partly cybernetical-technical reasons. Psychologically, it is a "handicap" (disadvantage, see Entry 020) for a sign to keep the very original (iconic) shape because this limits the semantic value to a single, generally primitive, concept, and thus hinders the very necessary metaphorical unfoldings. The cybernetical reason for "symbolification" is that it is complicated and expensive to produce icons. The Egyptian and Chinese scripts were originally iconic; in practical use they soon became symbolic. The cuneiform script of the Sumerians has never been iconic in its main part; the very intelligent Sumerians (who invented, among other things, the wheel) probably recognized the advantage of symbolic script. The cuneiform script has been, in principle, a "reasoning"-type communication from the very beginning on. The Egyptian, Chinese and Amerindian scripts were self-evident at the time of their creation and could be understood without previous explanation (teaching procedures or decipherment). — Gy. Décsy

003 Areal Linguistics describes the common features (areal isoglosses, aremes) of different (in general, genetically unrelated or not closely related) languages displaying geographical units which developed similar innovations in language structure, mostly under the influence of a prestigious and powerful acrolect (Leitsprache). The primary study object (starting point) of Areal Linguistics is always a geographical unit (area) inhabited by a compact group of people of a different tongue and/or ethnic tradition. The difference between Areal Linguistics and Language Alliance Research (Sprachbundforschung) is that the former deals with a large number of areal units (Sprachbunds), comparing them with each other within a macro-area; the latter, on the other hand, investigates only a single

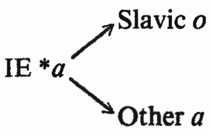
Language Alliance (e.g., Sandfeld's investigation of the Balkanbund) and disregards neighboring or further Language Alliances. Areal Linguistics has an American tradition (developed in connection with the grouping of Indian languages) in addition to a separate and independent European branch (main representatives: Trubeckoj, Marr, Jakobson, Ernst Lewy, Décsy, Harold Haarmann). For the 62 languages of Europe, Décsy set up the following ten historically developed areal units: SAE (Standard Average European), Viking, Litoral, Peipus, Rokytno, Danube, Balkan (after Sandfeld), Kama, Island and Diaspora (see R. A. Hall, in *Language* 52.977).
— Gy. Décsy

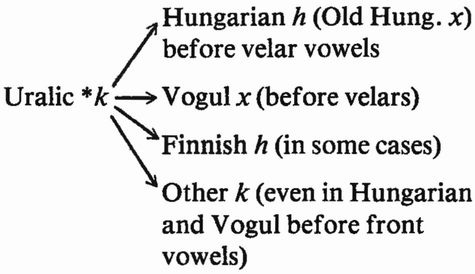
004 Ascendent and Descendent Aspects in Diachrony This important distinction of the Neogrammarians has often been disregarded in American linguistics (see Anttila 1972.20). The starting point of the ascendent investigation is the present-day language: we pursue the phenomenon backwards in time through the different intermediate units of a family tree to the Proto-Language (or, if possible, even deeper back in time). The ascendent method is the reverse of the factual development (history, see Entry 024). We illustrate the technique of ascendence by two formulas:





The starting point of the descendent method is the Proto-Language: we seek the correspondences to the Protoforms in the present-day languages:




Hungarian h (Old Hung. x) before velar vowels
Uralic *k
Vogul x (before velars)
Finnish h (in some cases)
Other k (even in Hungarian and Vogul before front vowels)

Methodologically, the ascendent strategy is primary; its main achievement is the description of Proto-Languages. The descendent method is, more or less, only a fiction based on the results of the ascendent investigations. However, descendent rearrangements of ascendent results are didactically more impressive and, according to the basic principle of the evolution theory, more realistic: in essence, the descendent strategy "copies" the real development. Ascendence and descendence are basic principles of any form of diachronic linguistics: language history, linguistic prehistory, paleolinguistics, protolinguistics, pre-protolinguistics, and even linguistic futurology. —Gy. Décsy

005 Assimilation As a concept of external linguistics: extension of the size of a language community in a process in which individuals or groups of another language community L (= Loser) lose their vernacular and take over the language of a powerful language community W (= Winner). From the point of view of the loser community, it is a diminution (see Entry 049). From the point of view of the winner community it is an (unnatural) increase of the community's membership status. Assimilation has been a powerful factor in language community formations since glottogonic times, and has led to the present-day disparity of language community sizes and language distribution in the world. In general, the powerfulness of the winner community is economically and politically conditioned. Most assimilations are "conflict free"; however, some status changes have been accompanied by emotions which are a source of hate and terror even today (the Basque problem, Irish-English struggles, Slavic-Hungarian alienations, Turkic-Armenian antagonism). Ruling groups of conqueror people, who migrated from East to West in Asia and Europe, often took over the language of their subjects (Mongols everywhere, Turks in Bulgaria and Hungary, Franks in Paris and Lombards in Italy). Ruling groups migrating from West to East, on the other hand, generally absorbed their alien subjects (Germans the Elbe-Slavs and Poles, Russians the Finno-Ugric peoples, French the Germans in eastern France). The most important assimilations in history and the development of civilization have been the Hellenization of the East Mediterranean between the 3rd century B.C. and the 3rd century A.D., as well as the worldwide expansion of English in the 19th and 20th centuries. — Gy. Décsy

006 Basic Laryngeal Noise Assumably a group of very archaic (primary) sounds (Proto-Phonemes, Pre-Proto-Phonemes) produced in the Larynx-Pharynx-Velum area without participation of the (classical) articulatory organs (tongue, mouth cavity, lips, etc.) of the supralaryngeal vocal tract (concept in Lieberman 1975.10-12). Practically, the *ʔ* (glottal stop), *h* (laryngeal fricative) and their pharyngeal (*ħ*, ʕ), uvular (*q*, *χ*) or velar (*x*, *ɣ=gh*, *ŋ*) counterparts belong to this group. The Basic Laryngeal Noise (BLN) is the most common sound product of primates and other subhumans (apes, dogs) which are unable to move their tongues, mouth cavities, lips, etc. (organs of the human supralaryngeal vocal tract, see above) due to the lack of the corresponding (human) mental abilities (fine tune command of the tongue, lips, etc.). The BLN is the acoustic basis of coughing, laughing, crying, sighing, etc. It is also produced by humans who are speech-impaired (dumb) as far as their inability to speak lies in the lack of power needed to articulate and fine tune the motion of the tongue, lips,

etc. In terms of markedness, the BLNs are the least marked units of the phoneme palette and can be regarded as the most archaic primordial elements of the human sound sequence language. For details see Décsy 1977.
— Gy. Décsy

007 Cardemes In 1957, Roman Jakobson pointed out that there are three basic forms of language comparison: the *genetic* method operating with kinship, the *areal* with affinity and the *typological* with isomorphism (Jakobson 1971.524, see also Schmidt 1977.5). According to this, we can establish three types of similarities between languages within a global ramification of comparative linguistics: *genemes* (genetic features), *aremes* (areal features) and *typemes* (typological features). We have to add two additional forms of language feature similarity: *tychemes* (or *gamblemes, hazardemes*) for accidental similarity (coincidence) and *unemes* for universal similarities. *Cardeme* is the collective designation for the five cardinal similarity features of a given language. There are no peculiarities in the structure of a given language which can be assigned to another similarity type. Theoretically, it is possible to find features in a language which are not found in any other language of the world. Such features could be called *indemes* (short for *individual features*). However, the *indemes* do not belong to the "similarity feature" catalog of a given language because their occurrence is limited to a single language. They are, therefore, not "similar" to any feature in any other language. Hypothetically, I regard as an *indeme* the characteristic feature of Hungarian that *all* vowels and consonants have a long counterpart in this language (total quantity correlation). For the time being, I know no other language in the world which displays a similar feature. Both *uneme* and *typeme* were used by me in the article "A Search for Universals in the Finno-Ugric Languages" (Décsy 1970, originally a public lecture first given at UCLA in 1967). *Typeme* or *taxeme* could also be used as a synonym for *structeme* (from *structure*), or *iseme* (from *isomorph*). It is well known that the post-revolutionary Russian language comparison has always been strongly typology-related and, especially in non-Slavic fields, deliberately anti-kinship-oriented (Marr, Trubetzkoy, recently Uspenskij; see Uspenskij 1965 and 1972). It is by no means an accident that Roman Jakobson (until 1921 in Russia) was the scholar who first suggested the aforementioned distinction (on which my terminological suggestions are based). See also Sherzer 1973.750.
— Gy. Décsy

008 Chronomorph indicates a form which is identifiable as the same through time. The sameness may be obvious (Egyptian *-f* 'he, him' Coptic *-f*) or it may require demonstration (Egyptian *?w* 'exists' [*aut sim.*] Coptic *e-* [verb-prefix]). More than one morpheme may be involved (Egyptian *sn-t* 'sister' Coptic *so:ne,* where *-t* is a suffix), hence (chrono)*morph* rather than (chrono)*morpheme*. The term was coined by Hodge in discussing the history of Egyptian (1975.179). — C. T. Hodge

009 Clan Language Community Size We assume that around 35,000 B.C. ca. 2,800 language communities came into being on the earth (the Old and the New World counted together: the New World at this time must have already been inhabited for at least 20,000 years). We further assume that the global human population did not exceed one million (estimate based on the data of Leakey-Lewin 1977.143) at that time. This means that the average membership of a primitive glottogonic language community in 35,000 B.C. consisted of 360 to 530 persons, in each case living in a precinct of about 19,000 square miles (see Entry 010). — Gy. Décsy

010 Clan Language Community Average Territory According to our calculations (see Entry 018) an average of 53 language communities live on every one million square miles of the earth. In a global perspective that means that the average language community territory is about 19,000 square miles (1,000,000: 53,118,883.2 sq. mi.). That is the area of our planet in which a clan size language was "generated" in 30,000-35,000 B.C. (glottogonic times, see Entry 052). This archaic geographical order was destroyed by the so-called Conqueror Language Communities (see Entry 039) which absorbed smaller linguistic units and occupied their territories. The original situation may still exist in some remote areas of Africa, Oceania and Asia (Sino-Tibetan territories). — Gy. Décsy

011 Codefree Communication Also called sound sequence free communication (lautsequenzunabhängige Kommunikation). The most commonly used variations are the Industry and Traffic Signs (Entry 041), comics, certain formulas in mathematics, physics and chemistry (e.g. H_2O), which can be in origin either symbolic or iconic. They are, however, directly connected with the concept (meaning). H_2O can be sound-sequentially encoded into the national acoustic system; however, it must not be (if every communicant knows that its meaning is English *water,* German *Wasser,* French *eau,* Italian *acqua,* Rumanian *apă,* Danish *vand,* Polish *woda,* Hungarian *víz,* Finnish *vesi,* Turkish *su,* Esperanto *akvo,* Greek *nero',* Arabic *ma,* Hebrew *mayim,* Japanese *mizu,* Swahili *maji,* Vogul *wit* and Yuraksamoyed *jih,* see Bergman 1968.249). Codefree communication is un-sound-sequence-bound (lautsequenzunabhängig) and thus supranational. The high importance of sound-sequence-free communication in multilingual territories has long been recognized. Horst Seefeld, member of the Socialist Faction of the European Parliament (Luxemburg), suggested its intensification as early as 1975 in recommendations to the Governing Body of the Common Market (Kurlemann 1976). —Gy. Décsy

012 Communication Channels There are five communication channels: tactile, chemical, acoustic, visual and electric/electronic. All channels operate by signs (sign systems) based on energy propulsion. Individual signs of the different channels can be called tacteme, pheromeme (or tasteme/odoreme; both are chemical signs), audeme, viseme (see Décsy 1981.23-34) and ectreme (short for *electreme*). The spatial range of the tactile and chemical channel is strongly limited. The *natural* acoustic and visual communications also have a relatively short radius (unless we use telecommunication techniques, an achievement of recent times). The tactemic and pheromemic channels can be utilized only in very small communities in a limited area (family and social get-togethers). They keep their unique prominence in reproduction (love, kissing, petting, stimuli by bodily connections). The role of the acoustic, visual and ectric channels was enormously increased by telecommunications. Human (sound sequence) speech does not represent a special channel: it joined the acoustic/visual channel which existed long before the rise of language (ca. 53,000 B.C.). Man could hear and see many millions of years before he began to speak. In human speech, the noise/sound *production* was the revolutionary innovation and the the noise/sound *reception*. The set tactile → chemical → acoustic → ectric represents an *evolutionary* (phaseological) arrangement.
— Gy. Décsy

013 Communicant is the equivalent of *interlocutor* in communication. As a general term, it has no channelistic specification. Interlocutor is a communicant of the acoustic channel. We could innovate *intervisor* for the visual channel, *intertactor* for the tactile, and *interferor* for the pheromemic (olfactory/gustatory) channel. Communicant, as a term, was apparently coined by Hailman (see Hailman 1977.22). Structural specifications are *Sender* (or *Emitter*) and *Receiver*. Inanimati (animals, things, objects, etc.) can also function as *Communicants*. — Gy. Décsy

014 Computer Age Illiteracy Today 10% of the American population (23 million people, i.e. 20% of the *adult* population of this country) have no adequate reading and writing skills. This has been regarded as a deficiency caused partly by the extremely difficult orthography system (spelling) of English (poor "phoneticianity") and partly by inadequate educational methods in elementary and high schools in the libertine '60s and '70s (Wellborn 1982). However, the reason may hide in other areas. In human history, script has never been a skill of all members of the different populations. Before the 19th century it was the "art" of professionals (scribes, priests, lawyers, educators). Total literacy is probably an interim (and relatively short) episode in the history of human communication. The invention of the typewriter (first recorded patent 1714 in England, mass production and commercial use since 1905) made handwriting dispensable (*type*script replaced *manu*script). With audio-visual telecommunications the direct acoustic-optic information (phone, radio, TV) superseded the written message transmission. Word processing with automatic spelling control further limited the instrumentality of writing. Industry and traffic icons (as well as comics, etc., see Entry 041) make reading increasingly superfluous and foster a codefree supranational (sound sequence free) message transmission. Reading and writing are no longer instrumental in the manner of the last two centuries (epoch of script, Script Age). This seems to be a perfectly normal development. Instead of complaining about the inefficiency of school education or the intricacy of English spelling, we should concern ourselves with how man will be able to master the new communications media and the computer to reach a unified global communication with modern technology. The shift from the acoustic-optic channel to the different ectric channel will be accelerated mightily in the '80s and '90s. Script (reading/writing) will become more and more obsolete; it will probably be taught and learned more for sentimental nationalistic reasons than for practicality. — Gy. Décsy

015 Concept Accumulation and Concept Pressure The concept precedes its name: if we do not have a concept (notion, sememe) we cannot give it a name. Concept accumulation gives rise to human speech (sound sequence language). At a certain time in our development (presumably with the appearance of Cro-Magnon man), a large number of concepts (notions) came into being in human societies (clans). Notional units (sememes) also exist in animal minds, but the number of such concepts is never very high, even for the highly developed primates (e.g. for chimpanzees a maximum of about 300). Concepts themselves are not limited to the human domain, but their extensive accumulation (quantitative extension) has occurred only in the human mind. We call the massive accumulation of conceptual units (sememes) *Concept Pressure* (German *Begriffsdruck,* see Décsy 1981.10-12), a term patterned after German *Selektionsdruck*. Concept pressure begins at approximately 1000 units (bits). — Gy. Décsy

016 Conspicuousness Index A very useful term created by Hailman (Hailman 1977.193); as a German correspondence has been considered *Auffälligkeit(sfaktor)*. A signal or sign must be "discriminated from other stimuli in the environment and ... environmentally robust ... even when altered during transmission...." A sign must be able to "set itself off" from the environment (Hailman 1977.193). The higher the conspicuousness index, the more energy is needed for its production or maintenance. Conspicuousness and energy consumed at the display of a sign are in a direct relationship to each other. A color sign (in a color TV) is more expensive than in a black & white set because more energy is needed for its transmission. (The average annual cost of using a solid state color TV in

America is $21.30 for electricity; the cost of a black & white set, however, is only $5.89; see *Changing Time,* February 1983, p. 24). The most expensive (and emotionally most impressive) sign is the tacteme: we travel by jet thousands of miles in order to touch (kiss) a relative or a person we love, or just to see (from a very close distance) a beautiful architectural monument in Italy, France or Egypt. The close natural view (optical sign, direct visualization) is almost as expensive as the tacteme. The *televiseme* (photo or TV picture) is less expensive, but never so fascinating, as the *directviseme.* Least expensive (and completely indifferent emotionally) are the *ectremes* — the unordered imprints on the tape of the computer.

— Gy. Décsy

017 Continental and Global Language Density Index The Language Density Index (Ratio) was introduced by Robert Austerlitz. In his article, "Language-Family Density in North America and Eurasia" (1980), he writes: "Using grossly simplified figures, we can calculate a GU-density ratio of a continent (GUDR), i.e. the number of GUs on a continent in relation to the surface of that continent" (Austerlitz 1980.3). GU is here 'Genetic Unit' and GUDR 'Genetic Unit Density Ratio'. I apply Austerlitz' concept in a somewhat modified form: the number of languages of a continent in relation to the surface of that continent. The particular data are to be found in the Entry *Continental Linguistics* (right of diagram). As the factors (assumptions, premises) are partly hypothetical (number of languages), partly relative (varying inhabitability of different regions of a continent), the data do not represent immutable (unshakable) characteristics. However, no one can offer better figures, at least for the time being. The average Global Language Density Index is 53.9, i.e. on the average, roughly 54 languages are spoken on every million square miles of earth. Except for Asia (57.8), all continental Language Density Indices are far from the average (53.9): they are too low in Europe (15.4), Australia (7.8), North America (23.3), and South America (29.8). They are too high, however, in Africa (94.2). We assume that Africa, the cradle of the human race, carries on the prehistoric situation. For possible reasons, see Entry 045 and 018.

— Gy. Décsy

018 Continental Linguistics Study and description of the languages of the five continents. A subsumption of the results makes the study an object of *Global Linguistics* (Entry 035). Here we tabulate for each territory its size, the total population, and the so-called Language Density (Entry 017) of the five inhabited continents:

Name	Area (million square miles)		1982 Population (in millions)		Number of Languages	Continental Language Density Index
Asia	16,999	30%	2,756	60%	985	57.8
Africa	11,688	20	500	11	1,100	94.2
North America	9,366	16	382	8	218	23.3
South America	6,881	12	257	6	205	29.8
Europe	4,017	5	690	15	62	15.4
Australia	2,966	9	15	—	230	7.8
Total	51,917	100%	4,600	100%	2,800	53.1

Asia includes Oceania in this table (i.e. the grouping differs here from the arrangement in: Statistics 3.2, p. 134, where likewise some phyla, such as Indo-European and Afroasiatic, overlap continents). A descriptive summary of the 62 Eurpean languages is given in my *Die linguistische Struktur Europas* (Décsy 1973), and of the 230 Australian languages in Wurm's *Languages of Australia and Tasmania* (1972). J. H. Greenberg tried a new systematization in his *The Languages of Africa* (1966); his classification (four phyla and 730 basic language units, see 161-171 of his book) is controversial (the number of independent languages in Africa is at least 1,100, see Statistics 3.3 in this book). However, it has been accepted by many linguists as a working hypothesis (see Ruhlen 1976). Because of the linguistic multifariousness and the populousness of the continent, a generic description of Asia as a homogenous linguistic entity would be unmanageable and impracticable. Concerning the largest language family of Asia (and the world) we refer to the *Introduction to Sino-Tibetan* of Robert Shafer (1966-1974). The Indo-European languages of Asia (in India, Iran, the Near East, etc.) have always been a special attraction for western scholars. Basic information about them is readily available in manuals published in Great Britain or Germany. Generic information about Dravidian, Austro-Asiatic, Austro-Tai and Indo-Pacific (all typical Asian phyla) can be found in Ruhlen (1976). Roman Jakobson's, Gerta Hüttl-Worth's and John Fred Beebe's *Paleosiberian Peoples and Languages* (1957) can be recommended even today as a reliable reference work for quick information concerning the eight small Arctic languages in Asia. Many good manuals about Japanese, Korean and Vietnamese have been published in the United States. Concerning Tungus (nine languages, ca. 60 dialects) the volume *Tungusologie* of the *Handbuch der Orientalistik* (edited by B. Spuler, authored by W. Fuchs, K. H. Menges and D. Sinor, and published in 1968) can be recommended. For Mongolian (besides Poppe's) G. Hangin's and J. R. Krueger's dictionaries and grammars are of importance. UN statistical publications often identify the Soviet Union as a "continent"—a custom disapproved of by many western scientists. However, the descriptions of the languages of the Soviet Union are excellent, both in Russian (*Jazyky narodov SSSR,* five volumes, 1966-1968) and in English (Comrie 1981). They offer useful information on the Altaic and Uralic languages in the Asian realm of the Soviet Union. Siberia has been more intensively tied with Europe (Russia) than with Asia for the past four hundred years or so. North Asia (Siberia) has a very low population density; out of the 270 million inhabitants of the Soviet Union not more than 45 million live in the Asian realm of the country, with concentrations in the Ural industrial area and in several large cities (Novosibirsk, Tumen, Vladivostok, etc., all with a Russian majority). The native language cover of the New World (Americas) has been reviewed recently in Campbell-Mithun (*The Languages of Native America,* 1979), focusing on Northern and Middle America. Concerning the South American Indian languages we refer to the particular chapters of the *Current Trends* and Ruhlen 1976 (especially 135-145, with bibliography on p. 147-148). The Language Density Index in the chart above indicates the number of languages spoken in the particular continent per one million square miles (see also Entry 017). The average Global Language Density Index is 53.1. — Gy. Décsy

019 Contradictory Imbalance in Channel Utilization The most utilized channel for modern man is the visual channel. We estimate that 80% of all information reaches us through the eyes (orientation in space, reading; the latter is an acoustic channel process in visual appearance, see Entry 139). However, this poses a contradiction. We have to transform (encode) our visual stimuli into an acoustically bounded code (sound sequence language) in order to be able to think, reason and respond. The process is very intricate and energy consuming. Therefore, there is a trend toward a non-sound-sequence-bound (acoustic-code-free) communication in our modern world. One innovative example is the utilization of industry and traffic (orientation) signs (see Entry 041). Another more technically advanced example is ectremic communication. — Gy. Décsy

020 Contranyms "Contranym is a word that embraces contradictory meanings" (Kilpatrick 1982). On the golf course, a *handicap* is an 'advantage'; elsewhere it is a 'disadvantage'. The semantic difference here involves the so-called "aspect question". The golf course handicap is a 'disadvantage' only from the point of view of the superior contestant (who, penalizing himself, concedes and 'advantage'—an allowance in distance—to the inferior contestant). The golf course *handicap,* however, keeps the meaning 'advantage' from the point of view of the inferior contestant. The contranym is patterned after the homonym, synonym and antonym. The concept has significance in Paleosemantics (see Entry 083). Our assumption is that the presoundsequential concepts of man came into being in dichotomic oppositions: cold ↔ warm, bright ↔ dark, white ↔ black, stand ↔ go, my ↔ yours, etc. (see Décsy 1981.35-40). Often in the beginning of soundsequential language development, the opposite meanings (white↔black, etc.) were connected with the same soundset. That is why the Indo-European basis **bhel-* appears both as 'white' (French blanche) and as 'black' (English black) in successor languages. In some cases there are only very little ablaut-like differences between the sound sequences designating opposite meanings (i.e. antonyms), cf. in Hitigima (a Central New Guinea Highland language) *muli* means 'black' and *mola* 'white' (*UAJb* 54.145, 1982). I suppose that also in the stem of Hungarian *fehér* 'white' and *fekete* 'black' an identical pre-Uralic root (**pä*) lives on (*UAJb* 51.55-56 and 52.26-27). In Slavic the stem *kon-* had the meaning of both 'beginning' (Serbocroatian *iskon*) and 'end' (Czech *pokon*). — Gy. Décsy

021 Core Vocabulary It has long been recognized that some lexical items are more 'basic' than others (see, for example, McCurdy 1881, quoted Hodge 1981). English *eat* and *fire* are more common, more central to ordinary usage, than *consume* and *conflagration*. Swadesh attempted to compile a list of words which would be common to, and basic in, all languages. This proved more difficult than appeared, but his resulting lists (of 100 and 200 words; given in Samarin 1967:218-23) are still very useful as a basis for inter-language comparisons (see, e.g. Swadesh 1967). By studying the loss or replacement of such items Swadesh concluded that such loss was at a determinable rate.

Without arguing the merits of the resulting glottochronology (Hymes 1960) one may reasonably assume that such vocabulary is in general more resistant to change than the rest of the lexicon. The fact of survival of a substantial amount over long periods is attested (e.g. in Egyptian; cf. Hodge 1975a). The comparison of such lexical items is therefore the best test of more remote relationships and the best basis for determining sound correspondences which will establish such relationships (cf. Hodge 1975b).

— C. T. Hodge

022 Desiconization, Arbitrarization, Decausalization is the powerful trend in human communication to switch over from the energy intensive iconic communication to the technically simple and economic symbolic communication organization. Desiconization was coined by Sebeok, Arbitrarization and Desiconization by myself (see Décsy 1981.15).

— Gy. Décsy

023 Desambidexterization The ability of humans to use one of their hands (usually the right one) more skillfully than the other. This ability, which arose about 500,000 years ago, is responsible for the organization of the speech center (Broca's area) unilaterally in the left cortex hemisphere. Since sound (sequence) speech involves motion (gesture), it is understandable that it was organized in the brain close to the dexterity (precision grip) center.

— Gy. Décsy

024 Diachronic Linguistics deals with the language in a time framework in contrast to *Synchronic Linguistics* (see Entry 118). The concept was elaborated by Hermann Paul (1846-1921) in his *Prinzipien der Sprachgeschichte* (first edition 1880, see Paul 1968) which became a kind of "bible" of the Neogrammarians (correct translation would be: Younggrammarians). His work states that every dealing with the language can only be historical (i.e. diachronic). This is because the time factor is relevant even during the pronunciation of a single very short word. "Diachronic" and "historic" are often regarded as synonyms. However, it is advisable to differentiate between the two designations. "Diachronic" is a more comprehensive concept in connection with the time aspect of development (referring both to the past and the future). "Historic" refers only to the recorded time of the past. The *history of language* is always based on the study of written records. This is generally a very short (but enormously important) period of the past (for English and German ca. 1,200 years, for Russian ca. 1,000 years, for Chinese or Sanskrit ca. 2,000, etc.). A historical linguistics of English would, thus, have been dealing with the development of this language only since the appearance of the first written records preserved in original form (since the 7th century A.D.). Time before this must be regarded as *prehistory*. Such a distinction is generally accepted in those areas of Europe which were influenced in linguistic thought by the German Neogrammarians; however, it has not yet been adopted in the English speaking countries. The very long period of time involved in the development of a given language can be tentatively divided into the following units: Glottogony (ca. 35,000 years B.C., see Entry 052), Arche-Linguistics (the oldest developmental age of articulated human speech, ca. 30,000-20,000 B.C.), Paleo-Linguistics (20,000-10,000 B.C.), Pre-Proto-Linguistics (10,000-6,000/4,000 B.C.), and Proto-Linguistics (description of the Proto-Languages like Indo-European, Uralic or Semitic with the methods of comparative grammar). The age between the Proto-Language and the beginning of recorded history of a given presentday language must be evaluated individually on the basis of the findings of comparative grammar; here (at least for the Indo-European, Uralic and Semitic languages) we are on the firm soil (auf dem sicheren Boden) of genetic comparison (family tree research). Diachronic linguistics has two aspects: ascendent and descendent (see Entry 004). — Gy. Décsy

025 Ectric (Ectremic) Channel (short for electric and electronic) designates all possible communication beyond the five "natural" sensual channels (tactile, olfactorial/gustatorial, acoustic, visual). The pieces of information (bits) are electric imprints on or in the info-carrier (brain, computer tapes, see Entry 071). The exchange of these bits (information transfer) while bypassing the five natural sensual channels is ectric communication. A transfer of information from "brain storage place" to "brain storage place'' is technically possible today. The transfer of information (commands) from the brain to the receptory/executory areas of the muscle system is also practicable as the results of Dr. Jerrold Petrowski (Wright State University, Dayton, Ohio) proved in 1981. Ectric communication is the most simple and effective way of transmitting information. Its possibilities for development are unlimited; technically it is multipliable without any educational efforts. Ectric channel communication can not be involved in chemical substance transmission (Entry 038); therefore, it is not able to transfer or store emotional and experimental bits. Telephone, radio and TV transmit through the ectric channel. They decode and encode acoustic and optical channel signs which are perceived by the receivers as audemes or visemes. — Gy. Décsy

026 Education Information (message) transmission aimed at a certain age group, institutionally organized according to a seveal thousand year old tradition in schools. *Sender* is the teacher, *receiver* the student (pupil). The students (pupils, German *Schüler,* i.e. 'scholars') are groups (in classes), while the teachers are individuals. Since the extramural (non-school, *außerschulische*) information stream today is a multiple of ''in-school teaching'' (and is qualitatively more attractive), the *raison-d'être* of the old school organization becomes increasingly questionable. An additional factor is that the IQ (Intelligence Quotient) of the so called ''youth'' is increasing, at least in societies where information is appropriately organized (i.e. the most industrial countries of both the East and West). Ten to fifteen year old ''children'' often use the vocabulary of highly educated adults. This is still unusual and humorous today (the American TV-sequel *Diff'rent Strokes* is based on this ''unusuality''), however, according to sociopsychologists it is going to become a common phenomenon in the industrial countries of the '80s. The mass telecommunications factor and a forward-shift of both the physical and spiritual maturation age of ''youth'' to approximately 16 to 18 years make the reorganization of the school and university systems a necessity of highest prominence in the '80s and '90s. See Décsy 1982.296-297. — Gy. Décsy

027 Etymology, Recausalization, Reiconization Etymology as a science is the reverse of Symbolification (Entry 036). However, it is not only a discipline; it is also a powerful psychological trend in the operation of language, and the most popular game of amateur linguists. Man wants to find the *cause* behind the symbol. We find etymological explanations in the Bible and in most medieval chronicles (they often only offer primitive ''folk-etymologies''; see Borst 1957, passim). As the sense of etymology is to find a *causal* connection between sound sequence and meaning, and as this causal connection between signans and denotatum is the characteristic feature of the icon (Entry 037), we can call the etymology (both science and psychological trend in the language) reiconization. — Gy. Décsy

028 Eurafricanic Connection The main stream of human migration from the East African Proto-Homeland went, according to generally accepted views, through the Near East to the North (Asia, Siberia, Europe). However, this was not the only route humans chose on their way to moderate climatic zones. The Sahara area had a flourishing culture with excellently organized inhabitance until at least 10,000 (probably even longer). That means Southwest Europe had not been separated by desert from the central part of tropical Africa before this time. We must suppose, therefore, that a large part of the Ice Age European population (mostly pre-Indo-Europeans) must have come from North Africa directly to Spain, Malta, Italy, France, and perhaps also to Central Europe. A considerable number of pre-Indo-European peoples who settled in the area before the Indo-European invasion are known only by name. They are the Elymi, Sicani and Siculi in Sicilia; the Etruscans in Tuscany (Italy); the Ligurians on the Italian-French Riviera; the Iberians in Spain; etc. The Basques are the only surviving pre-Indo-European group of the area, but that does not mean the Basques are genetically related with the aforementioned peoples. Pre-Indo-European (and pre-Uralic) Europe was probably inhabited by peoples speaking hundreds (if not thousands) of clan-size (or medium-size) languages of different origin (among them, probably, also so-called "secession languages", see Entry 101). In this context, pre-Indo-European Europe did not differ from present-day Central Africa or Central Southeast Asia. The major linguistic conquerors and unificators of Europe were the Indo-Europeans, especially the Celts (until the 5th century B.C.), the Romans and then the Germanic peoples. One of the most promising paleolinguistic research programs is to find the pre-Indo-European rests in inscriptions (see Untermann 1975) or in substratum-phenomena of living languages in Spain, Italy, etc. Dominik Josef Wölfel attempted to compare a relatively large number of so-called culture words (Kulturwörter) from Berber, Haussa, (aboriginal) Kanari, Egyptian, Coptic, Cushitic, Basque, Celtic, Germanic, Italic and Greek in order to outline a common Mediterranean vocabulary of the pre-Indo-European time in the area (Wölfel 1955). This "Eurafricanic Connection" should be further studied as a complementary part of classical Afroasiatic research concentrating on the Near East. — Gy. Décsy

029 Eurasian Linguistics The word *Eurasian* is first attested in English in 1858 (OED). Eurasian Linguistics in a broad sense deals with all languages of Europe and Asia; in a narrower sense only with the 62 European languages (as listed in Décsy 1973.28-153) and the idioms north of the Caucasian, Indic-Iranian and Sino-Tibetan areas in Asia. Europe is geographically only a peninsula of Asia; however, North Asia (Siberia, the Asian part of the USSR) is linguistically and culturally only an appendix of Europe. Southwest and Southeast Asia (India, China) are heavily populated and linguistically strongly differentiated; so they desire special attention and separate linguistic methods. Siberia resembles Europe in its relatively small number of languages (ca. 40) and low population density of about 40 million people (similar to the forest and arctic zones in the Eastern regions of Russian Europe). Eurasia presents a "reflected image" of North America: heavily populated and industrialized in the coastal areas (England, Germany, Benelux countries, France, Japan and the eastern part of China, Korea) with decreasing population density in the central parts. Its coastal zones are strongly multilingual (traditionally pluralistic) without a supranational hegemonial language (British-English, French, German, Scandinavian languages, Japanese, Korean); its central part is also multilingual, however, with Russian as a strongly established hegemonial language which has strengthened its position since the end of the Second World War. Nevertheless, Eurasia is a unit in the same way as North America. Its western part is the cradle of modern world civilization, its eastern part (Siberia) played a very important role in the rise of Cro-Magnon man (see Okladnikov 1974). The East Bloc of Eurasia (a compact economical and political unit) is presently the only serious challenger of the global supremacy of the Americans (see Décsy 1982.29-36). Macroareal Eurasia (see the narrower sense above) is a most fascinating object for linguistic study. Appropriate investigations are carried out by the Eurasian Linguistic Association (founded 1971 in Hamburg, Germany; present center in Bloomington, Indiana, U.S.A.).

— Gy. Décsy

030 Eurasists and Eurasitics A Russian nationalistic ideology developed in the '20s by Trubeckoj, R. Jakobson and other emigrants in Sofia (Bulgaria), Belgrad (Yugoslavia), Vienna (Austria), Prague (Czechoslovakia), Berlin, Brussels and Paris to overcome the difficulties caused by the revolution of 1917 (Böss 1961.7). The linguistic projection of the idea was R. Jakobson's Russian publication *O charakteristike evrazijskogo jazykovogo sojuza* (Paris 1931, 59 pp., French abstract in *Le Monde slave* 1.371-378, 1931). According to this, the Russians are predestined to lead the roughly 200 different peoples (mainly non-Slavic: Uralic and Altaic) of the Russian Empire (Soviet Union). The Russian language influx introduced a number of Slavic-type phonological features into non-Slavic languages of the vast territory between Poland and Japan (palatality correlations, etc.). Languages which did not share the "Eurasian features" were qualified as "peripherical" (thus the West Slavic or the East Asian idioms like Korean and Japanese). The Eurasists regarded Russian as a hegemonial language (Leitsprache) not only of the Soviet Union but of the *whole* Eurasian continent. They refused Westernization, were anti-Marxists, and elevated personalities like Genghis Khan to protagonists and positive heroes of the history of Europe and Asia. In the '30s the concept proved to be completely unrealistic. The most positive theoretical achievement of the "movement" was the concept of "Areal Linguistics" and "Language Alliances" (Sprachbund) postulated by Jakobson in his aforementioned Russian publication. — Gy. Décsy

031 Evolution Theory, Markedness and Phonogenesis The least marked phonemes are the oldest and the strongly marked the newest members of the phoneme inventory. The markedness degree can be determined by the energy applied in articulation of the particular phoneme (in connection with the muscle activity of the lungs, the tongue, the pharynx-larynx, etc.). Here I list the most commonly used vowels and consonants in supposed increasing order of their markedness. Vowels: *ə, i, ä, a, o, u*. Consonants: *ʔ, h, k, w, ŋ, j, gh, t, p, g, d, b, x, s, m, n, š, z, l, r, ž, č, v, f, c, ǯ*. According to this, *ə* and *ʔ* can be qualified as the most archaic primary elements of the vowel palette. Generally, the "heavy-marked" *u* is regarded as relatively old (because it is a vocalic realization of the very archaic *w*); the *i* is also old (being the vocalic realization of the very archaic *j*). The *a* and *ä* must precede *o* and *e* (they are, as assumed, secondary in both Indo-European and Uralic, as well as in Semitic). In the group of consonants, generally, the velars and nasal velars seem to be the oldest units (especially *ŋ*). The velars and stops are older than the dentals and fricatives. It is difficult to chronologically qualify *m* and *p*. In the language of newborns they appear very early. The consonant *s* is probably only a variation of *t*. The sonority correlation (*t – d, s – z, k – g, p – b*, etc.) later came into being through a split of the original "medial" units (T/D, S/Z, K/G, P/B, etc. — these were neither voiced nor voiceless). Conservative languages like Finnish do not know the sonority correlation. It is a theoretical possibility that the spirants were originally only long variations of the stops (thus **tt* > *s*, **kk* > *x*, **pp* > *v*). The affricates are certainly young. The *l* and *r* go back to an undivided *L/R*; this unit could be regarded as a click (Schnalzlaut) produced as "direct noise" to a greater degree by tongue motion rather than by air pressure. For details see Décsy 1977 and Entry 097.

— Gy. Décsy

032 External Linguistics Same as sociolinguistics, a translation of French *Linguistique exterieure* or *Linguistique externe*; the latter term was used by de Saussure in the introduction of his *Cours*, probably under the influence of E. Durkheim (see Doroszewski 1933). Apparently, there was also some consideration in America in the '50s and '60s to use External Linguistics (Gumperz 1966.27, Malkiel 1953, Voegelin 1977.2) before "sociolinguistics" became generally accepted. — Gy. Décsy

033 German Orthography and the efforts for its reform display some exemplary problems of the script, orthography and spelling in the Latin code generally. The basic issue of German "orthography reform" is whether capitalization of the initial letter of nouns (substantives) should be abolished. The plan, which is generally regarded in the Federal Republic of Germany as "progressive", could not be realized because one of the four German speaking countries, the German Democratic Republic, did not accept it (Switzerland and Austria seem to be congenial with the views of the linguists in West Germany). To capitalize or not to capitalize the first letter of nouns is, of course, not an orthographical (spelling) problem, but rather an interpunctional issue. As the difference between "majusculae" and "minusculae" in generally used scripts in Europe is a product of the late Middle Ages, the context of the problem has a certain chronological limitation. A return to the unified majuscula-system in computer printouts in the meantime has been concluded. It is only a question of time when the practical typewriter and manuscript system will follow the computer usus. Indeed, the difference between majusculae and minusculae are cybernetically unacceptable: its maintenance is too expensive and has absolutely no advantage (not even esthetical). A reintroduction of the absolute majuscula-writing will solve the German problem automatically. A real problem of the German orthography is thus not the "capitalizing" of the initial letter of nouns ("Großschreibung"), but rather the change of some clumsy letter combinations like *sch* (for *sh*), *tsch* (for *ch*) and *ch* (for *kh*). These are often regarded as products of the German genius and therefore especially valuable from a nationalistic point of view. This assumption is not correct because in old German documents *sh* was often used for *sch*. The *ch* (phonetically a velar or palatal spirant: *ach*-Laut and *ich*-Laut) is a phonetic and orthographical phenomenon which connects High German (root in the Meissen-area) more with Czech, Polish, Sorbic and Kashubian than with the West German dialects (especially in the Low German territories) which do not carry this consonant (they have instead *sh* or *k* for it). Historically, the *c* in *ch* is not a *c* (*ts*) but a *k* (see Italian Gron*ch*i = Gron*k*i). The original common European phonetic value of *ch* was *tš*, i.e. the same as it has today in English (and had earlier also in French, Hungarian, Croatian, etc.). The *tsch* (for English *ch* or *tch*) is the result of a German exaggeration in pedantry: since *ch* is explained phonetically as a combination of *t* and *sch*, in writing the usual German signs appear together. In any case, it will be emotionally difficult to change this letter-monster because it occurs in the national self-designation of the Germans (deu*tsch*). Likewise, the dots over *ü* and *ö* make German writing complicated ("Umlaut": actually an abbreviation of the original *e* after *u* and *o*; the old sign for *u* was *ue*, and for *o* was *oe*). A cybernetically meaningful German orthography reform should thus include the following changes: *sch* > *sh*, *ch* > *kh*, *tsch* > *ch*, *u* > *ue* and *o* > *oe*. Such changes are both cybernetically and phonetically justifiable; in some cases they would only result in a return to earlier usus (*sh*, *ue*, *oe*). The new system would avoid diacritical signs which make orthographies "difficult". It is an advantage of the English, Dutch and Italian orthographies that they apply no diacritical marks. Since the highly coherent German language (see Entry 051) will certainly retain its importance in Western Europe for a very long time, an appropriate (and real) "orthography reform" would make it even more attractive as a second or third language in Europe. — Gy. Décsy

034 Gestalt Linguistics The main tradition in theoretical linguistics has always been analytic, i.e. establishment of the smallest elements as the basic entities. One now explains the higher levels through combinations, aggregates, of the elements (Und-Verbindungen). This leads to a strict *either-or* classification of units, in conformity with the reductionistic concept of science, the mainstay of most varieties of structural linguistics, including transformational-generative grammar. Synchrony is now necessarily separated from diachrony, the former enjoying theoretical primacy and the latter being appended to it as an afterthought.

The above approach to science in general has been patently false at least since Einstein's physics and v. Bertalanffy's organismic conception of dynamic morphology in biology (the cradle of general systems theory), whose counterpart in mental life and psychology is the gestalt conception, firmly established also in the 1920s. Its necessity for linguistics is obvious, although a very small minority has used it explicitly (notable examples would be the world field investigators in Germany and the Lapp morphophonemicists in Finland). Linguistic perception, like any perception, is determined from the whole (synthesis is primary), and its description requires a field theory based on a *both-and* principle to provide the structural dynamics and coherence of linguistic wholes. The whole is qualitatively different from the sum of its parts. This approach relies on the figure-ground principle (rather than on ambiguity as a nuisance to be explained from below), and on similarity and contiguity as factors underlying spontaneous unification of memory and perception, thereby making categorization (meaning) possible. Analogy gets here its highest theoretical justification. Furthermore, the dichotomy between synchrony and diachrony vanishes, as language is not just its structure and change, but a structure in change (diachrony is theoretically primary). Change and the whole are immanent in the constellation of the (material) system. Linguistic structures are complex networks of interaction unities (Wirkungszusammenhänge), not underlying things.

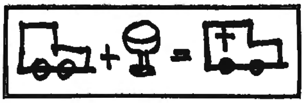
Gestalt notions have been applied to phonology, morphology, syntax, and semantics with equal ease, and they also agree with the essence of semiotics, where signs derive from their totality as the basis. Lower-level signs give up their independence to enhance the whole, which guides their destiny. The fate of the part resides in its position in the whole. This is borne out in etymology and philology with maximal clarity. These disciplines are theoretically more valid than much of theoretical linguistics.

The qualities of the two kinds of linguistics came out in Edward Sapir and (the later) Leonard Bloomfield. Sapir pleaded expressly for gestalt theory, although it has easily been overlooked as his common sense, whereas Bloomfield opted for behaviorism. As an overall linguist, Sapir has hardly been surpassed. (See Anttila 1977, Langhoff 1980.) — R. Anttila

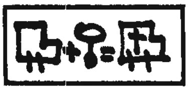
035 Global Linguistics or Transworld Linguistics deals with all languages of the world. Since Wilhelm v. Humboldt (1767-1835) it has been a dream of many linguists to study all languages of our planet. Although there are about 20,000 professional linguists on the earth, they have not as yet been able to describe and scientifically analyze the roughly 2,800 languages of the world. This is a regrettable situation, especially when compared to the achievement of botanists and zoologists who have registered, described and systematized ca. 1,300,000 (one million three hundred thousand) plants and animals (not counting small and microorganisms) since the eighteenth century. The structure of a given language is never more complicated than the anatomy of a highly developed animal. The apparent registrative backward state of language science here can be neither excused nor explained. One of the reasons could be the strong inclination of linguists to set up theories on the basis of limited factual materials from just a few idioms (see Entries 121 and 137). The foundation of a Global Linguistics was laid in Germany by P. W. Schmidt (*Die Sprachfamilien und Sprachkreise der Erde* 1926) and in France by A. Meillet and M. Cohen (*Les langues du monde* 1924, a collaborative work). Less comprehensive, yet important publications are the books by F. N. Finck (*Die Sprachstämme des Erdkreises* 1909) and Ernst Kieckers (*Die Sprachstämme der Erde* 1931). English, American and Russian contributions remained in the frame of Continental Linguistics (see Entry 018). John Lotz, Director of the Center for Applied Linguistics (Washington, D.C.) tried to promote the idea of a unified description of the languages of the world during several international meetings in the '70s (see Lotz 1983 in this volume, p. 1-5). The basis of the Stanford Language Universal Program (led by Ch. A. Ferguson and J. H. Greenberg) and of its Germany counterpart, the Köln Language Universal Project (led by Hans-Jakob Seiler) in the '60s and '70s produced more theory than useful description of the languages of the world (see *UAJb* 52.184-5, 1980). Nevertheless, both ventures promoted the idea of Global Linguistics in a meritorious way just as *Current Trends in Linguistics* (16 volumes, ed. by Th. A. Sebeok 1963-76 with Mouton) which reviewed more the *study* of the languages than the description of the languages of the world in a global perspective. The Russian book, *Principles of the Description of the Languages of the World* (edited by V. N. Jarceva, B. A. Serebrennikov and M. A. Zhurinskaja 1976; see *Principy* in References, p. 145) with many original theoretical viewpoints is apparently a follow-up of the Bad Wartenstein international meeting of

1970 (see Lotz 1983; Jarceva was one of the participants). An excellent individual byproduct of the Stanford Language Universal Program is Merritt Ruhlen's *A Guide to the Languages of the World* (see Ruhlen 1976 in References) which lists nearly seven hundred languages with detailed and unified phonological description, and thus realizes an idea which was a dream of the late Prince Trubetzkoj (see his *Preface* to the *Grundzüge der Phonologie* in 1939). There are some surprisingly good concise descriptions about the language families of the world in less known languages (see Antal et al. 1970 in Hungarian, Joki 1966 in Finnish). The most important duty of the 20,000 professional linguists of the world in the '80s and '90s would be a complete description of the languages of the world on the basis of unified instructions either in the framework of a Continental Linguistics or according to the so-called LIVI-Program (see Entry 061). An indispensable reference work of Global Linguistics is Charles F. and F. M. Voegelin's *Classification and Index of the World's Languages* (see Voegelin 1977 and *UAJb* 52.184-185) which lists and identifies more than 20,000 names (languages, language groups, subgroups, phyla, genetic as well as areal units), assigning them to ca. 4,500 basic units regarded by Voegelin as real (proper) "languages". In my opinion, Voegelin strongly differentiated, elevating simple dialects to languages (see *UAJb* 52.185, 1980). The reference works most commonly used by the public, government officials, students, etc. in America are Siegfried H. Muller's *The World's Living Languages* (1964) and Kenneth Katzner's *The Languages of the World* (1975). Both give very good and quick reference overviews about the top 200 languages of the world. The world language data of the annual Almanacs (*The World Almanac, Information Please,* etc.) are generally based on Muller's and Katzner's books. — Gy. Décsy

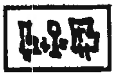
036 How an Icon Becomes a Symbol: Symbolification In December 1974 I travelled by car on the highway between Aachen and Liège in bilingual Belgium. On the way I sighted a warning sign on the right side of the road. It was a very primitive sketch similar to this:



The meaning was clear for Belgians and Europeans without further explanation: 'a drunk driver ends up in the cemetery'. Americans have deciphered the sign (with clearly recognizable syntax) as 'drunk drivers go to the hospital', gleaning in the right hand car an ambulance. They did not know that the Latin cross in Europe symbolizes cemetery and funeral, and the Greek one (the form used in the Swiss flag and Red Cross insignia), the hospital. The sign was unambiguous only for (local) Europeans. However, the Americans quickly learned the special meaning of the Latin cross. The sign (=icon) in this form is complicated, and we can imagine that the Traffic Sign Department (if it had decided to produce it in large number) would have designed it like this:



Such a concise sign is not an icon any more because the meaning is not self-evident. Further simplification of a Chinese script-oriented designer would have resulted in



which is an absolute symbol very similar to a Chinese "letter" (ideogram). The community using it must set up a school for children and foreigners where the meaning is taught. An icon will be a symbol in that moment when it is semantically no longer self-evident for everybody. Only technically complicated signs (icons) are self-evident, mirroring the reality with all important features (comics, paintings, sculptures, photographs, TV pictures). An abstract painting or other product of non-objective art (see Guggenheim Museum in New York) is more symbolic than iconic.

— Gy. Décsy

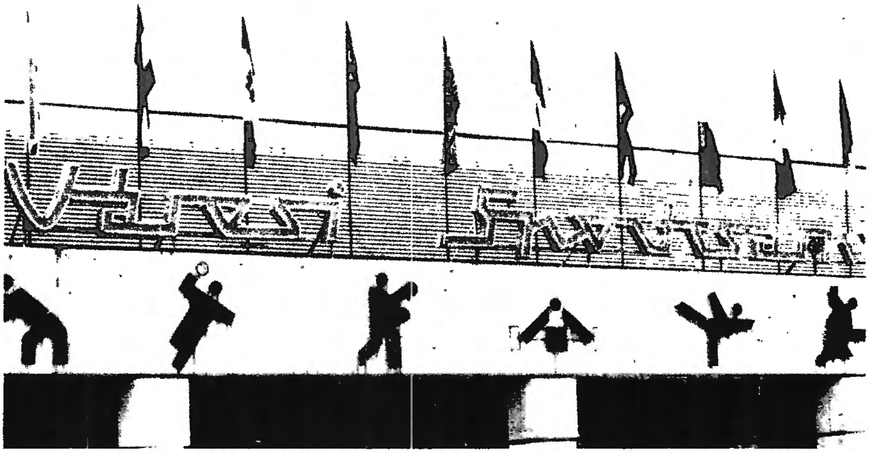


Figure I. The Facade of the Sport Hall in Debrecen (Hungary) with decorative ideograms (built in 1976).

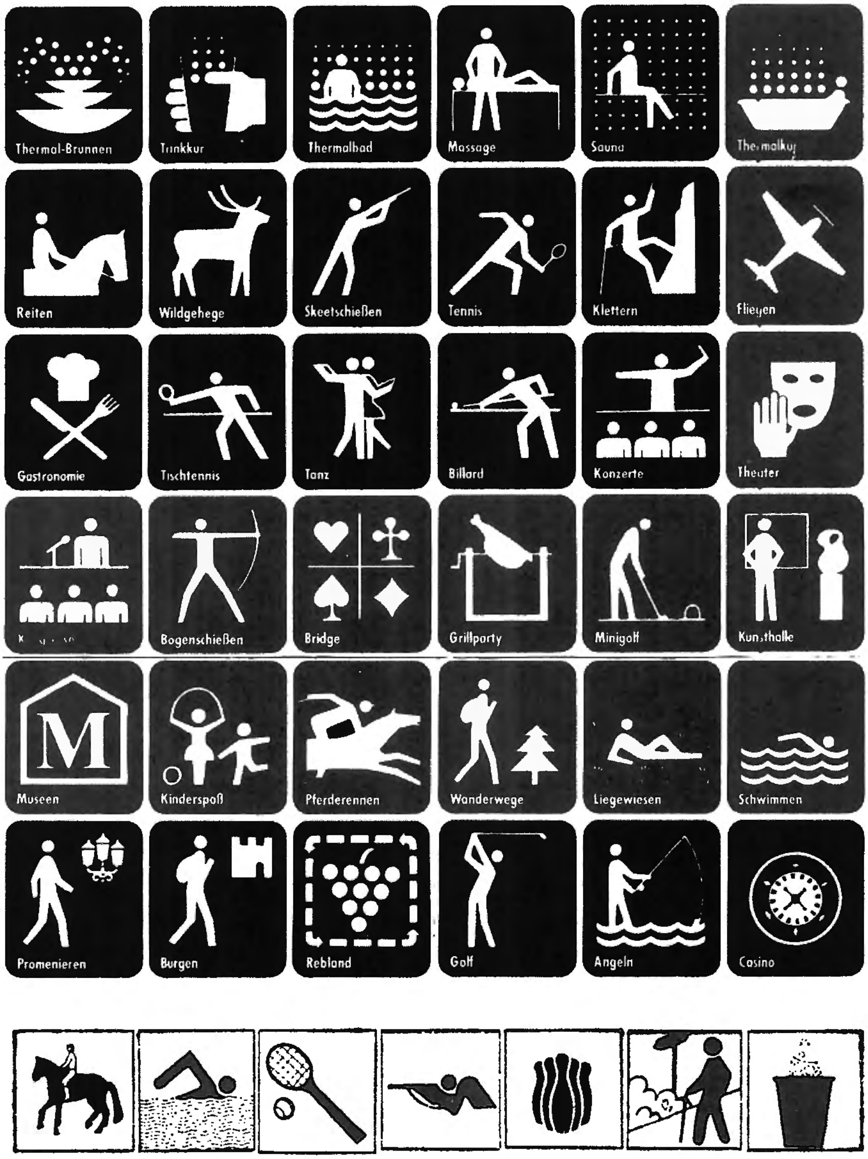


Figure II. Tourist and Sport Icons from Europe.

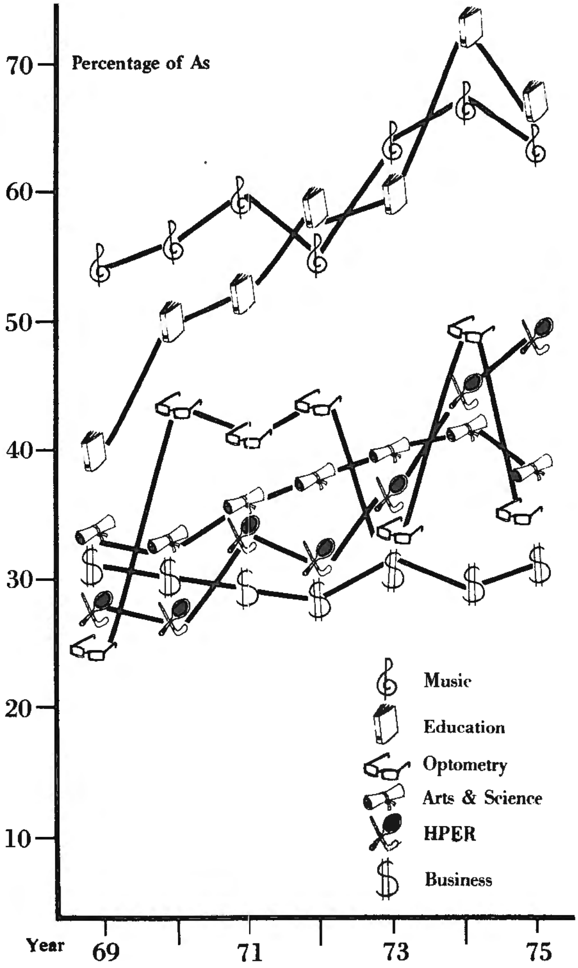
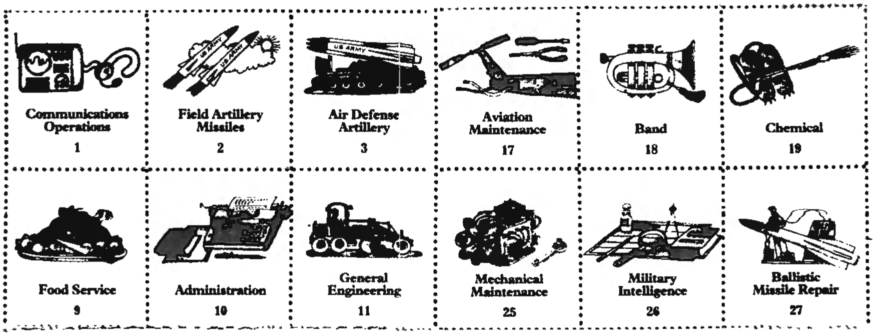


Figure III. Icons in America. Above: diagram of grade point trends by schools at a university. Below: an Army ad of 1976.



037 Iconicity Problems The most conspicuous feature of an icon is that, as a sign, it seems to be simple (and therefore "primordial" evolutionary). However, factually, it is more complicated than its counterpart, the symbol. The connection between icon (as a sign) and meaning is *causal*; the one between symbol and meaning is *arbitrary*. The basic difference between the two sign types was recognized long ago by Plato (physei ~ icon, thesei ~ symbol); before de Saussure, most linguists were aware of this difference; however, they were not able to find a common and consistent term for its designation (I listed almost 20 different names for the antagonistic relationship in: Décsy 1981.16). An additional terminological mishap is that symbol was also used in the meaning of icon (Lautsymbolik, so a.o. by Roman Jakobson, see Jakobson-Waugh 1979.178). In accordance with Coseriu, I find that *causal word* or *sign* is a better term than icon (details in Décsy 1981.15). Since the early Hellenic time, scholars have pleaded for the "iconic" origin of language (e.g. Diogenes Laertius Epicurus, ca. 341-270 B.C., see Décsy 1981.21). The idea seems to be a product of sophistic speculations; it became very popular in subsequent times (it was accepted by Leibniz, O. Jespersen, R. Jakobson, I. Fonagy and others; in the U.S.A. by Wescott). The pre-Epicurean Greek philosophers and de Saussure refused it, in my opinion with full justification. The basic feature of the icon is causality, and the causality is a product of consciousness and of *reasoning*. However, consciousness/reasoning is only human, and even as a human feature, it is relatively recent (according to Julian Jaynes not older than about three thousand years, see Gliedman 1982.85). An icon (causal sign) can only be used in a community which has a highly developed consciousness (intelligence). It has been proven that the signs of animals are mostly symbolic and not iconic (see Wescott 1982.4, also Décsy 1981.21). Admittedly, Karl von Frisch and R. W. Wescott could recognize iconic signs in the dancing patterns of bees (Wescott 1980.4). However, the distinction remains whether an alleged animal icon is recognized (and qualified) as "iconic" by human scientists investigating bee communication (a gestural understanding) or by the bees themselves as conspecific communicators within the bee society. It is well known that human icons easily become symbols or function as symbols (decausalisation, desiconization). The semantic feature of causality is an unnecessary (additional) load for the sign. The symbol is codable, the icon is not. The most perfect icon is the original object we contact: it possesses codeless and signless meaning. Its "sign", the sketch, is technically difficult to produce; reasoning and the reconnaissance of causal connections are required for its perception. These procedures of long duration make the icon unfit for communication which in its perfect form is a high speed exchange of information (even in the animal kingdom). In computer science, the icon is neither applicable nor programmable. These devaluating remarks, which could be interpreted as a kind of "anti-Iconism", concern only language origin and high speed communication. In many sectors of human life, the icons play a major and exclusive role (theater, imitation, TV, art, painting, sculpture); however, their use requires a high level of reasoning ability which always involves more than a simple communication procedure. Plato and de Saussure are right: the icon (as a linguistic term, a "coinage" of Peirce) cannot be primordial. It has always been (and will remain forever) only a secondary means of communication; cf. Entry 002. — Gy. Décsy

038 Imbalance in Semseme Utilization is the result of a continuous shift from the primitive short distance (tactemic, pheromemic) channels to the (increasingly) more sophisticated tele-able acoustic, visual and ectric channels. If we take the telecommunicative information sources (telephone, grammophone, radio, tape recorder, etc., as well as TV) into account, we can state that the acoustic and visual signs a person daily receives have such a unilateral preponderance that the tactemic and pheromemic channels can be regarded — at least quantitatively — as negligible. Tactemic and pheromemic channels cannot be activated telecommunicatively: touch, taste and smell are always fictions on the TV and must be conveyed by (secondary) acoustic or visual signs. The technicians make no attempt at "teletactemics" or "telepheromemics", although these channels could also be used for long distance communication (by beaming heat to the particular part of the body of the TV-viewer, e.g. by laser which could activate a certain chemical substance previously placed there). The technique is expensive and would probably not be welcomed by the receiver. The tactemics and pheromemics are emotionally bound and belong to the most secret privacy area of any individual; they are often taboos in private and social life. An emotionless "reasoning communication" is possible only through the acoustic, visual and ectric channels. — Gy. Décsy

039 Imperial Languages or Conqueror Languages are, in principle, all idioms exceeding the clan size of glottogonic times (ca. 350 speakers per 19,000 square mile precinct). In glottogonic times (ca. 35,000 B.C.) all 2,800 language communities were of clan size. Later on, many of them began to expand and absorb (assimilate) the other less powerful language communities. Although the number of world languages remains approximately the same (Entry 074), the constantly changing size of the language community in the dialectics of gain/loss (expansion/attrition) led to an imbalance in the geographical distribution and speaker number of the different languages of the world. The trend toward imbalance was probably strongly accelerated by the Agricultural Revolution around 10,000 B.C. (Leakey-Lewin 1977.119-145) and then by the establishment of imperial states since the 2nd millenium B.C. A total imbalance came into being after the discovery of the Americas (1492) when English (beating its competitors

— Spanish, French, German) became the unquestioned world language after five centuries of development. The top 12 languages of the world (Statistics 3.1) are the most well known imperial languages. Historically important imperial languages are Latin (about 40 million speakers in 1 A.D., or 25% of the world population of the same period); Hellenic-Greek (30 million speakers in 1 A.D., or 18.8% of the world population at that time); and Aramaic (10 million speakers in 1 A.D., or 6.25% of the world population at that time, i.e. 160 million). In pre-Columbian America Nahuatl (Aztec), Quiche and Quechua may have been the most important imperial languages. — Gy. Décsy

040 Indo-Hittite The internal relationships of the languages commonly labelled Indo-European are still unresolved. Differing views on the position of the Anatolian languages (including Hittite) led to the creation of the term Indo-Hittite. The existence of the sounds *x*, *ɣ*, the simpler verb system and other features of Anatolian could be explained in two ways: 1) divergence from the proto-language or 2) retention of these from the proto-language. The second view implies that the rest of Indo-European is innovative in these respects and that the Anatolian branch was the first to separate from the others. This remainder consists, of course, of the Indo-European languages known before Hittite was discovered and from which a proto-Indo-European had been reconstructed. Those who concluded that Anatolian represented an earlier proto-language needed a way of saying this. Indo-Hittite was the term coined. On this hypothesis Anatolian separated from the rest of the group (or the rest of the group removed itself from Anatolian). This remainder was then 'Indo-European' (Sturtevant 1962).

Many scholars believe this sequence to be the probable one without themselves adopting the term Indo-Hittite. They simply redefine Indo-European to mean this earlier language (cf. Hodge 1974). The alternative view, that Anatolian innovated after leaving Indo-European, is also held (see Kammenhuber 1969) — C. T. Hodge

041 Industry and Traffic Icons An expanded use of icons for communicative purposes is a remarkable phenomenon of the last two decades ('60s and '70s). Technicians began to generate, without any central regulation or theoretical consideration, small sketches indicating activities, simple information, instructions, advice, rules, customs, etc. Although the sketches can be rather different in style, size, and form, they all have a common advantage: they are recognizable for the target persons (groups, targetship) without considerable explanation (learning procedure). Further, the sketches are not bound to any sound sequence and thus have an extraordinary advantage in international (supranational, "sprachgrenzübergreifend") communication. A cross-line on the picture of a dog means:

no dogs admitted. The same on the picture of a cigarette: no smoking. The sketch of a truck at the entrance to a tank station indicates the correct way for large motor vehicles to drive in. Four arrowheads pointing to the center signalize a meeting place (e.g., at the airport). Famous are the icon systems (syntactically arrangeable in part) of the Olympic games and sports activities. All industry and traffic icons are visual; they enable the targetship to perceive the information without sound-sequential encoding and decoding (which is, of course, always possible but not always necessary). Although the production of signs is expensive and complicated, they have the advantage of a direct-causal (i.e. true iconic) connection between concept and signal: the recipient saves the time and energy necessary for the sound-sequential encoding and decoding. We estimate that about 100,000 industry and traffic icons are presently in use in different parts of the world. They have special advantages in multilingual areas (Europe); however, a large number of such icons are also used in the monolingual United States. That means that icons display a certain communicatory superiority, even in monolingual areas. I refer to the illustrations printed below and on the next two pages of this book, further, to ISO/DC 145 "Graphic Symbols" (International Organization for Standardization) which contains a sample collection from May 1974 and recommends international unification of the Industry and Traffic Icons. Up to now the effort has met with little success because the different designer groups prefer to follow different styles and techniques in their sign production. — Gy. Décsy

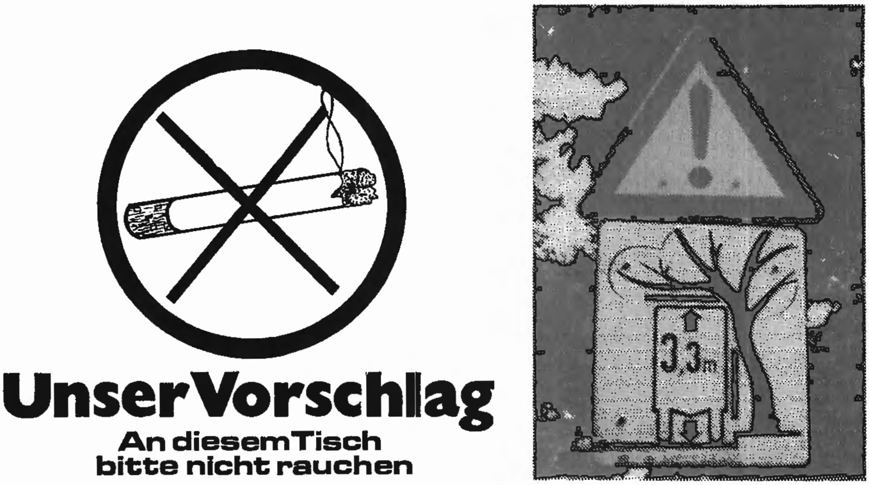
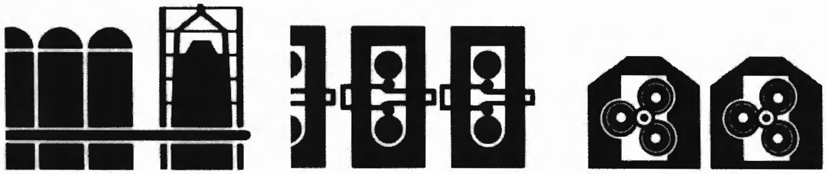


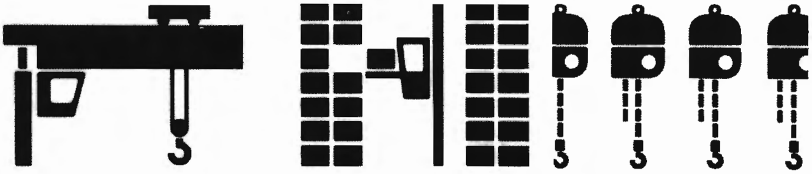
Figure IV. Icons recommending behavior. Both from Hamburg, Germany.



Metallurgical Plant
Integrated plant, blast furnaces, steel mills, continuous casters, electrometallurgical plant.

Rolling Mills
Rolling mills for beams, sections and wire-rod; strip and sheet mills, strip processing lines.

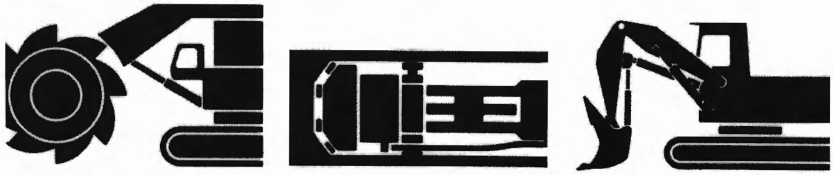
Pipe Making
Plant and machinery for the production of seamless and welded tubes and pipes. Hydraulic presses.



Cranes
Overhead cranes, slewing cranes and jibs, suspension cranes and track systems, and steel mill cranes.

Distribution Systems
Materials handling and warehousing systems, continuous handling equipment, order pickers and rack feeders.

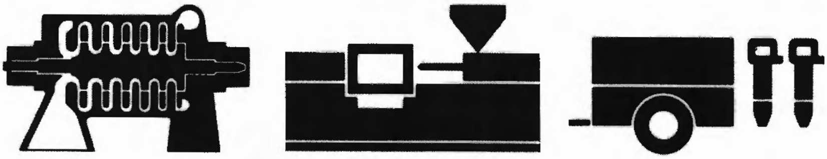
Components
Electric lifting tackle, standard crane components, load lifting attachments, drive and control components.



Bulk Handling
Bucket wheel excavators, reclaimers and belt conveyor systems, container handling systems.

Mining Equipment
Shaft winding equipment, tunnelling machines for hard and soft rock. Compressed air motors.

Construction Equipment
Hydraulic excavators up to 270 t, mobile cranes up to 800 t, road finishers up to 12 m.



Compressors
Centrifugal compressors and positive displacement machines for air and technical gases.

Plastics Machinery
Machinery and complete systems for injection moulding.

Pneumatic Systems
Compressors, pneumatic tools, equipment and components for the building trade and industry in general.

Figure V. Industry Icons of a German mechanical engineering company. An engineer can recognize the meaning of the signs, probably without explanation. The texts indicate the meaning for "outsiders" (uninitiated). With permission of the Mannesmann Demag AG, Duisburg, Germany.

042 Instrumentality Quotient A language is "instrumental" if its knowledge is absolutely necessary to live, work and be effective in a society. Official (or co-official) state languages in the 32 states of Europe have a 100% instrumentality quotient (see the list of the 55 European states and administrative units in: Décsy 1973.284-285). The instrumentality quotient of a given language can be calculated on the basis of the native speaker number, the second language speaker number, the covered territory (both in native and second language speaker areas), the storage value (storage volume, see Entry 114) and the futurological assessment/homogeneity index. — Gy. Décsy

043 Isolates are separate languages or language families without *proven* genetic relationships. The concept is highly important in Global Linguistics because an estimated 50% of the languages of the world cannot be assigned (even hypothetically) to any genetic unit. Of the so-called phyla (listed in Statistics 3.3) only Indo-European, Uralic, Semitic (a subbranch of the Afroasiatic phylum) represent methodically well established genetic units (language families). The "Protoform" of these families (Proto-Indo-European, Proto-Uralic, Proto-Semitic) could be regarded either as isolates (Paleo-Languages) or (hypothetically) affiliations of assumable superphyla (Indo-Uralic, Nostratic, Lislakh, Lisramic, etc.). See related Entries.
— Gy. Décsy

044 Japhetic The former name of the European languages as opposed to Semitic (originally South Asian) and Hamitic (African: Coptic, Berber, etc.). These terms, derived from the names of the three sons of Noah, were very popular in medieval grammatical tradition (see excellent documentation in Borst 1955). The term *Japhetic* was "discredited" by the Russian linguist Marr and is no longer used in Russia or in the Western countries, although it could serve as the designation of the Pre-Indo-European and Pre-Uralic languages of Eurasia. Thus it would be the same as *Paleo-Languages* in this book (see Entry 082). — Gy. Décsy

045 Khoisan The phylum consists of approximately fifteen languages with a total of about 150,000 speakers concentrated in the region of the Kalahari Desert. The name Khoisan was created by Schapera from *Khoi* 'self-designation of the Hottentots' and *San* 'the Hottentot name of the Bushmen' (Greenberg 1966.66). Only Khoisan languages utilize clicks (Schnalzlaute) as full members of the phoneme system (however, only in initial position). The yellow-skinned Khoisans "are racially quite distinct from speakers of Afroasiatic, Niger-Kordofanian, and Nilo-Saharan languages. It seems likely that Khoisan languages were once much more widespread in southern Africa, but the Bantu expansion from the north and the European invasion from the south have today relegated Khoisan speakers to the inhospitable region around the Kalahari desert" (Ruhlen 1976.65). Apparently, the Pre-Negroid Khoisans were able to assimilate some Negroid peoples (ca. 50,000 Bergdama Negroes speak a Hottentot dialect today). The clicks of the Zulu and Bantu (both Niger-Kordofanian languages) were taken over from Khoisan idioms (Greenberg 1966.66). All member languages of Khoisan have an *h* (the other full-*h* phyla of the world are Caucasian, Na-Dene, Salish, Wakashan and Aztec-Tanoan, see p. 17). Since Khoisan is apparently one of the genuine African "Paleo-languages" continuing the linguistic habits of those famous areas in Kenya and Tanganyika where the human race came into being (Leakey & Lewin 1977.80), special effort should be made in connection with the study of its idioms. The Polish Khoisanist Roman Stopa listed as archaic features of Bushman (one of the Khoisan languages): clicks, tone, lack of numerals, morphological use of reduplication, semantic role of gestures, situatives as well as the existence of a strong polysemanticity (Schwidetzky 1973.162).

046 Labies Short for laboratory words (technical terms) set up by technicians and physicists/chemists, often under violation of the derivational rules of the language supplying the basic sound sequences like *automobile* (Greek *auto,* Latin *mobilis*) or *garbology* 'study of the recycling of garbage' (William Rathje, University of Arizona, Report on the *Today Show,* March 25, 1977, 8:15 a.m.). Occasionally, *Schenectady* was used as a term for this type of word creation, because many of these terms were suggested in the famous laboratories of the city in New York State. Praninskas (1968) offers a large collection of trade name labies.

— Gy. Décsy

047 Lacus, Inc. (Linguistic Association of Canada and the United States) Lacus, taking its name after the Great Lakes, was founded by its incorporators (A. Makkai, V. B. Makkai, J. P. Maher, R. J. DiPietro, P. Reich, J-L Garneau, and F. C. C. Peng) in 1974. The society is devoted to the scientific study of language without giving undue preference to any existing theoretical model; contributors to each annual Forum (which alternates between a U.S. and a Canadian campus in even and odd years, respectively) are encouraged to constructively criticize presently prevailing modes of thought. The Proceedings, known as the First, Second, etc. Lacus Forum are published each year; the last outstanding volume is that of 1981. The society's headquarters in Lake Bluff, Illinois (POB #101, 60044). Adam Makkai serves as Executive Director and Director of Publications, and Valerie Becker Makkai serves as Secretary-Treasurer and Coordinating Editor. The three board members, as well as a President and a Vice President, are elected each year by the membership. The elections are carried out by mail balloting on the suggestion of the nominating committee.

Lacus has grown from a few dozen people to a nearly one thousand member organization in less than nine years. Past presidents were: Dwight Bolinger (1975-76), Roger Wescott (1976-77), Kenneth Pike (1977-78), Ernst Pulgram (1978-79), H. A. Gleason, Jr. (1979-80), Saul Levin (1980-81), Charles Hockett (1981-82), M. A. K. Halliday (1982-83), with Sydney Lamb as Vice President.

Lacus is not only inter-theoretical but interdisciplinary as well. Psychiatrists, musicians, poets, and philologists function side by side with linguists of various skills, training backgrounds and theoretical persuasions. The membership coined the term "Lacus spirit" to describe the atmosphere of constructive discussion, offering sharp contrast to the intellectual atmosphere of other societies throughout the '60s and the '70s.

In conjunction with Jupiter Press, Inc. (Lake Bluff, Illinois, POB 101, 60044) Lacus also publishes the journal *Forum Linguisticum* which includes the *Edward Sapir Monograph Series in Language, Culture and Cognition;* FL and the ESMSLCC have been appearing since 1976. Information regarding both the society and its publications is available at the address given or by phone (312) 234-3997. — A. Makkai

048 Language Alliance A neologistic anglicism based (probably as a loan translation) on German *Sprachbund.* German *Sprachbund* seems to be a loan translation of Russian *jazykovyj sojuz* used in Roman Jakobson's famous exile publication of 1931 (Jakobson 1931). I do not find *jazykovyj sojuz* listed in Soviet (Russian) reference works. *Language Alliance* was used consistently by Nicholas Poppe in 1975 (see References). *Language Alliance Research* (Sprachbundforschung) generally deals with only one relatively small isolated areal unit (see Sandfeld 1930, Becker 1948, Décsy 1973.29). In contrast to this, Areal Linguistics (Entry 003) describes the languages of large geographic units (macrareals) or a set of contagious Language Alliances. U. Weinreich and H. Katz regarded Sprachbund as a bundle (Bündel) of isoglosses (Katz 1975.130). Jakobson was inclined to construct a "Sprachbund" on the basis of a single isogloss (see Entry 030; Baltic Sea "Tonbund") which is objectionable (see Lehiste 1978).

— Gy. Décsy

049 Language Attrition is the loss of language skills (Lambert & Freed 1982). It is the reverse of language acquisition (maintenance, retention) and has both internal linguistic (memory, bit storage in the brain, aphasia-problems) as well as external linguistic (sociolinguistic) implications. At least half of the 60 to 100 billion individuals who have lived on earth from the beginning of the rise of the human race (Ehrlich 1972.5) was in some way confronted with the loss of language skill (mostly of the mother tongue or vernacular). The loss of the mother tongue has always been regarded as something negative. But on the other hand, assimilations and integrations led to the creation of the "superlanguages" of the world and to the synchronization of the internal structure of the different idioms (see Entry 113). Awareness of language attrition as a theoretical problem was generated by a symposium at the University of Pennsylvania in May 1980 (Lambert & Freed 1982.V). Its theoretical aspects are important for substratum (adstratum, superstratum, etc.) research. — Gy. Décsy

050 Language Characterology, Language Taxonomy are more appropriate terms than Language Typology which is ambiguous and often confusing (see Entry 127). The best term, however, is probably Language Identification which includes a full cardemic (genetic, areal, structural, gamblemal and indemal) description of any given language of the world. It represents an enumeration of features similar to that encountered in zoology and botany, or in the personal identification of human individuals (as in criminology, see Allison 1976). — Gy. Décsy

051 Language Cohesiveness Index "Political stability is often associated with linguistic and ethnic homogeneity ... wars have been fought ... in modern times on the issue of race, language ... religion ... [and] political ideology" (Kurian 1979.44-45). It is remarkable that the Soviet Academy rather than a Western pluralistic institution set up "homogeneity" indices qualifying the countries of the world with regard to cohesiveness (Kurian 1979.45-46). Accordingly, the ten most coherent states are North and South Korea, South Yemen, Portugal, Japan, Haiti, Puerto Rico, Hong Kong, East Germany and West Germany. China is in 37th place, France 61st, the United Kingdom 66th, the United States 82nd, and the Soviet Union is in 101st place. The data are based more on the political loyalty of the citizens to the state than on linguistic consciousness; however, they are also characteristic for language coherence. France, apparently, is handicapped by the Provencal-Basque-Alsace-Breton minority problem, the United Kingdom by Scottish, Welsh and Irish nationalism, and the United States with Latino and East European groups. Remarkable is the high degree of cohesiveness of Korea, Japan and the Germanies. It is the task of future research to set up more precise cohesiveness indices, especially from a linguistic point of view. See also Décsy 1973.176-178. — Gy. Décsy

052 Language Origins Research (LOR) has replaced the previous terms Linguistic Prehistory (Swadesh), Glottogony (Hockett), Glossology, Glottogenesis (Wescott), etc. since the '60s. I translated the somewhat puristic ("anti-Greek") and clumsy English expression as *Sprachherkunftsforschung* into German and used it as the title of my publications (Decsy 1977 and 1981). LOR is an American achievement of the '70s. Its founders are Gordon W. Hewes (University of Colorado) and Roger Wescott, who, despite a "wide-spread academic prejudice against the subject" (Wescott

1974.I), courageously began research and publication on language origins problems (see Hewes and Wescott in References). Hewes' *Language Origins: A Bibliography* listed approximately 11,000 titles on the topic, thus lifting the ban on language origins research imposed by the so-called Paris Prohibition of 1866 (see Décsy 1977.8). The pioneer collaborative work, *Language Origins,* published in 1975 (materials of a meeting held in 1972, see Wescott 1974) soon became obsolescent because of more comprehensive publications. The most important of them was the *Origins and Evolution of Language and Speech* containing materials from a conference organized by the New York Academy of Sciences (Harnad 1976) offering excellent interdisciplinary apercues on the subject from nearly 100 expert contributors (linguists, psychologists, sociologists, anthropologists, zoologists, semiotists, phoneticians). Philip Lieberman's *On the Origins of Language* strengthened the view that the Neanderthal man had no articulatory abilities (he was unable to pronounce, e.g., *i, u* and *a*). This led to the conclusion that sound-sequence-language (see Entry 109) is an achievement of Cro-Magnon man and cannot be older than ca. 35,000 years (Lierberman 1975). Wescott's collection of articles, *Sound and Sense,* made easily accessible important contributions of the author to the topics (Wescott 1980, actual publication 1982). The plural form *language origins* was deliberately selected by Wescott "(in preference to, say, 'the origin of Language') both to make explicit ... (the) ... doubt that language sprang full-armed from the head of prehistoric man and to suggest ... (a) ... pluralistic rather than monistic approach to the problem of glossogony" (Wescott 1974.III). Wescott and the American LOR generally approached glottogony with the ascendent method (see Entry 004). I made the attempt at the descendent method in my German book *Sprachherkunftsforschung I-II* (Décsy 1977 and 1981) utilizing the results of animal communication research (see the encyclopaedic work Sebeok 1977) as well as the conclusions of European comparative behavioral science in the ramification of Evolution Theory. My basic view was that the concept (meaning) precedes the sound(sequence) and that the less marked element in phoneme genesis precedes the stronger marked units. Since the least marked vowel is ə and the least marked consonant is the glottal stop, I assumed the undivided vocal-consonantic combination *E/H* (simple for ə/ʔ) must have been the "Basic Laryngeal Noise" from which the human palette of articulated sounds (phonemes) can be derived (Entry 006). Sound production in the mouth cavity (supralaryngeal vocal tract) became possible by the unique anatomic change of the humanization process: the ability to press air through the mouth cavity while closing the air passage through the nasal cavity with the velum. This technique is distinctly human. All animals press air (the breath) through the nose; they are not able to direct the air through the mouth cavity. This is one of the reasons why apes cannot be taught language (among other reasons). The basic difference between the passage of air through the head area of animals and that of humans was recognized 200 years ago (Kempelen 1791.105 and Décsy 1977.71-72) by Wolfgang Kempelen (1734-1804). Regrettably it was disregarded by modern phonetics. — Gy. Décsy

053 -lects "Abstracted" from dia*lect,* this element became a popular second part of compounds in English linguistic terms. The oldest and very useful creations seem to be *basilect, mesolect* and *acrolect* of Creole and Pidgin research (Hymes et alii). *Acrolect* is also an excellent counterpart to German *Hochsprache* which has no (or has not had up to now) a handy English translation (*High Language* like *High Culture* is cumbersome). Further possible creations are *Superlect* (the top 12 languages of the world, see Statistics 3.1 in this book), *Eurolect, Wordlect, Sovielect, Eastbloclect, Scandolect* (common elements of the Scandinavian languages), *Regiolect* (regional variations of an acrolect), *Schoolect* (argot of a school class), *Prisolect* (argot of a prison), etc. — Gy. Décsy

054 Linguistic Cybernetics has two aspects: internal (grammatical) and external (social and psychological). Internal Linguistic Cybernetics deals with the sign systems of the acoustic and optical channels (as the other sensual channels play only a marginal role in human communication). Its main concern is to find the most efficient ways of sign creation, maintenance and transmission. Practically, this means reforms in orthography and suggestions for sound sequence free communication techniques (icons, diagrams, indices). The external branch of Linguistic Cybernetics investigates the relevant psychological and social factors in linguistic communities such as coherence/disjunction, emotional glue (Bindekraft) and possibilities of a supranational efficient communication of given multilingual political and economic units (e.g. of the Common Market in Europe). Pedagogical Cybernetics or Cybernetical Pedagogics (cybernetical educology) is a subbranch of Linguistic Cybernetics; it develops new teaching technologies. The important work of the influential *Institut für Kybernetik* in Berlin/Paderborn (West Germany, director Helmar Frank) includes, among others, a recommendation for the introduction of a Common European Second Language (Gemeinsame Europäische Zweitsprache). Hermann Schmidt first laid the principles of Cybernetics (Allgemeine Regelungskunde) in Germany in 1941, several years before Norbert Wiener submitted his famous theory in America. See Frank 1973.223. — Gy. Décsy

055 Linguistic Futurology is the study of the prospective (expected, possible) development of the language(s) and is to be regarded as complementary to historical linguistics. The diachrony has not only a past aspect (as generally thought) but also a futurologistic dimension (see Décsy

1973.230). Predictions, of course, not always turn out to be right; however, assumptions concerning the past (history) can be controversial as well. Our prognoses are that the semantic synchronization of the languages of the world (an ongoing process since Greek and Roman times) will continue until the year 2000, completely affecting all languages of the earth. English (probably an American version) will become the leading language of the world. However, ectric channel communication (Entry 025) will limit its international usage. Optical iconism will experience an extended use for 10 to 15 years (after that, it will decline). Esoterics will not be tolerated; the English (Worlish) of the future will be a kind of Plain English. There is a good possibility that the strongly developed industrial countries in Europe (where English is used today as a second language or working language) will replace their vernaculars with English in many areas of public life. The instrumentality and prestige of English is going to increase in an exponential proportion. Relevant information will be available in a technically simple form only in this language. There will be many oral variations of English (see Entry 058); however, the Standard based on spelling (orthography) will remain unchanged. A somewhat more rigorous change of the traditional English orthography would namely lead to a collapse of World-English and to a loss of its prestige. The different New Englishes will be in a similar relationship to each other as Cantonese and Mandarin in China are today: a full intelligibility between the speakers will be possible only through writing. Writing/Reading will be a valuable (and probably not very common) skill. However, an abolishment of the script or a basic change in the internal structure of English is not to be expected. English, and with it most of the presentday acrolects of the world (ca. 150 to 200 languages) will be preserved and continued till the end of time. Sebeok's view that in 10,000 years no presentday language will be understood (Sebeok 1983) cannot be accepted. It is possible, however, that the art of reading and writing will become a privilege of new "monk orders" which will carry on the traditional scripts and the knowledge deposited in it (as Sebeok 1983). Also, certain old fashioned "antique" communication techniques will be preserved and, probably, ritually used in many areas of human society. As the "antiquated" tactemes and pheromemes are indispensable elements in reproduction and emotional life today, so the acoustic and optic channel communication will retain its special role in human social life; it will even develop new and more attractive forms. However, the main communication channel will be *ectric,* functioning on the basis of "direct" (codefree) concept transmission, perhaps without "materialistic" nervous and mental channels. Information exchange and storage will be carried out, as it were, between computers without any human interference. — Gy. Décsy

056 Linguistic Paleontology is a scientific method of localization of the Primordial Home (Urheimat) of a Proto-Language. The term was coined by

Adolphe Pictet (1799-1875); see the title of his book *Les Origines indo-europeénnes ou les Aryas primitifs: Essai de paléontologie linguistique* I-II (Paris: L. Cherbuliez 1859-1863). The idea of Linguistic Paleontology is that the Primordial Home of a given Proto-Language must have lain in an area which displays a concentration of plants and animals, the names of which existed in the vocabulary of the given Proto-Language. The method was refined by the contribution of Victor Hehn (1813-1890), although his main work, *The Wandering of Plants and Animals from their First Home* (London: Swan Sonneschein and Co. 1885, German original's first edition 1870), offered more cultural history than linguistic observations. Linguistic Paleontology was more or less successfully applied only in connection with Indo-European and Uralic (and their subbranches). According to these, the Indo-European Primordial Home must have been in Western Europe (in Thieme's view between Weser and Odera), and the Uralic in East Europe (between Volga-bend and the eastern slopes of the Ural Mountains). More precise locations remained controversial. A modern review of Linguistic Paleontology and Primordial Home Research in Indo-European studies was offered by James P. Mallory in 1976 (in Reprint of Hehn 1885) as well as by Scherer in 1968. For the corresponding Uralic research results see Décsy 1965.211-219. The method could also be applied in connection with other phyla (or at least their subbranches). — Gy. Décsy

057 Linguistic Society of America, founded in December 1924 under the participation of Bloomfield, Sapir, Fr. Boas, and others, today has roughly 6,000 members, the largest organization of linguists in the world. In principle, it embraces all languages and disciplines, but is, basically, highly formalistic, preferring structural studies as practiced in America during the last decades. Its organ, the *Language* (59 volumes up to 1983, edited in California since 1969 by William Bright) is dedicated mainly to English and other major Western languages as well as to the idioms of Native America. Some areas of the global language picture are treated scantily, as few specialists in certain language families approach their subjects so formally. It does contain some very good and wide-ranging reviews, but articles in the main body of the journal are often extremely complex and specialized. LSA Secretariat: 3520 Prospect Street N.W., Washington, D.C. 20007.

— J. R. Krueger

058 -lishes The proto-form of the coinages with the end part *-lish* seems to be *Finglish,* used to designate the mixed language (Creole?) of American Finns since the '40s (Sahlman 1949, Virtanen 1979). The mixed language of American Hungarians was called *Hunglish* in the '70s (*UAJb* 53.105, 1981). In the collaborative publication *New Englishes* (Pride 1982) we find *Singlish* (Singapore English, 202) and *Hinglish* (Hindi English, 154). Further possibilities based on the Pride publication would be: *Niglish* (Nigerian

English, see Jirbel in: Pride 1982.75), *Philish* (Philippino English, see A. Gonzales in: Pride 1982.174), *Zamblish* (Zambian English, see R. Serpell in: Pride 1982.100). I have suggested *Eurenglish* for the Second Language (Mesolect) Level Continental European form of English (Décsy 1974). For Black English (see Dillard 1973 and Jones 1982) *Blanglish* or *Baglish* could be an appropriate designation. In opposition to *-nesses* (acrolect-like variations with local features, see Entry 070), *-lishes* represent mesolect-type spoken variations of English in a bilingual environment. In relation to "perfect" U.S. or U.K. Standard English, however, the *-lish*-speakers perform (because of their poor command of English) only at an inadequate level, mixing features of their mother tongue (vernacular) with Standard English. The unusual plural form *-lishes* was "gentryfied" by Pride's publication (New Engli*shes* 1982). — Gy. Décsy

059 Lislakh A connection between Semitic (a Lisramic language) and Indo-European was suggested as early as the 1830s (Lepsius 1836), and work on it has been carried on, sporadically, until the present day. Lislakh is a term coined to designate the proto-language from which Lisramic and Indo-European have come. It is composed of *lis* ('tongue') and **lax-* (from **laxwos,* a proto-Indo-Hittite word for 'people', reconstructed by Sturtevant and also found in Egyptian *rxwt,* the name of a people; Hodge 1972). Recent work makes the relationship of Lisramic and IE highly probable, so that it is likely that Lislakh was spoken by the ancestors of the speakers of both, about 15,000-20,000 B.C. (Hodge 1981) — C. T. Hodge

060 Lisramic is a phylum of related language families, these being Egyptian, Semitic, Berber, Chadic, Cushitic and Omotic (Hodge *apud* Bender 1976). The name is formed from the root *lis-* 'tongue' (as in Arabic *lisaan*) and ancient Egyptian *r-m-č̌,* presumably **ra:məč̌* 'people' (Hodge 1972). Other names for this phylum are: Hamito-Semitic, Semito-Hamitic, Afroasiatic (Greenberg) and Erythraic (Tucker). The hyphenated labels are generally avoided as they seem to imply (quite falsely) a linguistic unit Hamitic. Of the six families of languages, Chadic has the largest number of languages (over 150). It is believed by some to be more linguistically diverse (and therefore of as great, if not greater, time depth) than Indo-European. It may turn out to consist of more than one family. The earlier Cushitic grouping (as, for example, in Greenberg 1963) has been split into two families: Cushitic and Omotic (see Fleming *et al. apud* Bender 1976). The internal relationships among the Lisramic families are still being studied, though Berber, Egyptian and Semitic have been seen as having certain features in common. — C. T. Hodge

061 Livi Short for Linguistic Village. On the basis of a linguistic educational program in which native speaker representatives of all unknown, unregistered languages of the world would be hired for professional activity of about 30 years duration. They would receive an appropriate education in phonetics, grammar, etc., and would become residents of a linguistic community (Linguistic Village) which ideally would be located somewhere near a big university in the United States. They would write dictionaries and grammars of their mother tongue in English under the supervision of American professional linguists and would serve as informants for Global Linguistic investigations and Language Universal research. The program requires tenured positions for about 4,000 persons with an annual budget of $50 million — about half the amount distributed yearly by a large American private foundation, and a negligible fraction of the defense budget of the large industrial nations. It is clear that without such a plan the occasional individualistic descriptions of unregistered languages will never lead to the collections necessary for a global linguistic data base. The organization of the Livi should be seen as a matter of self-respect for the human race. In the next decades several hundred small and dwarf languages (at the bottom of the world language list) will probably become extinct. Therefore, preparations for the Livi (at least at the "bottom level") should be regarded as a high priority task. — Gy. Décsy

062 Luther Effect Martin Luther codified Standard German in the 16th century on the basis of his home dialect in Meissen (Dresden area). The region has had a Slavic population until the 13th and 14th centuries. This Slavic population had been superseded by a thin German colonial ruling class since the 11th century and became German speaking by the 15th century. The dialect, however, contains a large number of linguistic features which connect it with the neighboring Slavic languages (Sorbian, Czech, Polish), e.g. *z* (*tz*), *ch* (*x*), strong triadic gender, special adjective declension, large number of verbal prefixes, etc. None of these features are known in the western and northern dialects of German, and they can be regarded as High German-Slavic interference phenomena (Décsy 1977:2). Luther's written German became the quasi-official language of German Protestantism (Lutherism). It was accepted by all other dialects as an acrolect, even by the Low German regions where dialects substantially differ from the High German vernacular of Luther (e.g., they do not carry *tz, ch,* verbal prefixes, etc., see above). However, it is even more miraculous that the *Catholic* south German zones also accepted Luther's written standard as their official language and elevated it to an acrolect. The reason was that the leaders of the counter-reformation in the south German areas (Bavaria, Switzerland, Austria) realized they could only beat the successful Protestantism by using the language of Luther. That is what we call the Luther Effect: the adversary drops his own language and accepts the idiom of the more successful opponent. Probably this is one of the reasons why East Bloc people accept English as an international language today: they can influence their adversaries in the West only in this language. If the trend continues for several decades, it could lead to an unexpected change in language utilization in the entire area of the East countries. — Gy. Décsy

063 Macro- and Mega- As first elements of compounds, they became fashionable during the last two decades, cf. *macro-areal* or *macrareal, macrogroup, macrounits, megatrend* (Naisbitt 1982), *megaphylum, megagroup, megareal* 'a very large areal' (e.g. the Nostartic group, Entry 072). The Eurasian Language Alliance (as outlined by Roman Jakobson, see Entry 029) can be regarded as a macroareal. The opposite is the "minareal," cf. the Inner Asian Alliance (Tibetan and Mongolian, see Sinor 1971). A *dwarfareal* is geographically a very small Language Alliance, e.g. the so-called Sura Alliance consisting of Chuvash and Cheremiss spread over an area of about 10,000 square miles (Décsy 1973.128) on the Sura River in Russia. — Gy. Décsy

064 Matthew Words The English name form *Matthew* comes from the Latin/Greek *Matthaeus* or *Matthias* (and this from Hebraic *Mattathias* 'gift of Jehova', see Bryant 1977.348). The final *s* in the original *Matthaeus* was perceived as an English genitive ending and was therefore eliminated (vgl. German *Matthäus,* Hungarian *Mátyás,* Slovak *Matúš, Matuz,* etc. which keep the original *-s* or its regular correspondence). I understand under *Matthew Word* a very common phenomenon of lexical borrowing, the gist of which is the aforementioned transfiguration of Greek/Latin *Matthaeus* to English *Matthew.* The Hungarian word *marha* 'cattle, cow (Old also wealth)' was borrowed from High German *marchat* (this from Latin *mercatus* 'purchase, market'; cf. Modern Standard German *Markt* and English *market* and *mart*). The Hungarians conceived *-t* as an accusative ending and dropped it, thus making the (actually incorrect) nominative form *marha.* In Finnish the biblical name *Simon* is used as *Simo* because the Finns inadvertantly thought that the final *-n* of Simon would be a Finnish genitive ending. There are hundreds of amusing examples for "Matthew Words" in linguistic interference areas. — Gy. Décsy

065 Minority and Majority Languages in China Only the non-Han peoples are regarded as minorities in China; they are various Sino-Tibetan groups in the Southwest and Altaic (Tungus, Mongolian, Turkic, Korean) tribes in the North. Western linguists generally regard Cantonese (58 million speakers), Wu (52 million), Min (45 million) and Hakka (28 million) as "independent languages" (altogether 183 million) as Mandarin (800 million, see Statistics 3.1, Position Numbers 1, 20, 22, 24 and 36). However, the Chinese themselves see only dialects (regiolects) in the four "Con-Languages" of Mandarin. It is well known that the presentday acrolect (*Guoyu* 'national language' in written and *Putonghua* 'common speech' in oral use) is standardized on the basis of Peking area Mandarin. Orally, there is no mutual intelligibility between the five Chinese con-languages; they are kept together by the script (Entry 100). The situation is appropriately characterized by a European anecdote which was told in linguistic circles of the '50s. In the '30s a Chinese student, who had come from China to Western Europe and had studied both French and English for several years, was asked what would be the difference between French and English. His "unallusional" answer was: nothing. The reason is understandable: the differences between French and English are by no means more considerable than between Mandarin (Guoyu/Putonghua) and Cantonese. The two European languages, English and French, are kept together by the script (orthography) in approximately the same way as the two Chinese con-languages. This observation, on the one hand, displays an extraordinary relativity (and subjectivity) in the assessment of differences between two (related, yet mutually unintelligible) idioms. On the other hand, it emphasizes the major role of script in the constitution and maintenance of a (traditional) national consciousness (Selbstbewußtsein). The traditional writing system (originally pictographic-iconic) links the Han-groups to *one* nation, since in China only the non-Hans are regarded as real minorities. In 1974, altogether 53 non-Han minority languages were officially identified in the People's Republic of China (Lehmann 1975.117). Since then the number has increased to about 65 (Wang 1982). The actual number could be considerably higher. The most important non-Han languages are Tibetan (6 million speakers, Statistics 3.1.78) and Uighur (also 6 million, Statistics 3.1.79). A seldom anticipated danger in China is that the abolishment of the traditional writing system would dismember the present linguistically unified Han-territory, unless Guoyu/Putonghua become the common language of the whole area. Technically and educationally, this is an extremely difficult task. It would probably be easier to introduce English as a Common Second Language for all of China, whereby the emotionally deeply rooted old script could be sustained in many functions. The linguistic issues of the officially recognized minorities are investigated and regulated by the Linguistic Research Section of the Institute of Nationalities. In the Northwest they generally use a different script than their congeners on the Russian side of the border: the Uighurs and the Khazaks use Latin; the Mongols, the traditional old (Uighur origin) writing (Lehmann 1975.123-124). Linguists, who see an unreplaceable cultural heritage of the human race in minority languages, would certainly welcome a continuous governmental support for further registration and fostering of the small non-Han languages in the People's Republic of China. — Gy. Décsy

066 M-M Communication Model Short for "Mother Tongue to Mother Tongue Communication". Speakers of genetically closely related neighboring languages use their vernaculars in conversation even if the mutual intelligibility suffers thereby. It is customary to use M-M Communication in the following areas of Europe: Scandinavia (Swedish, Danish, Norwegian, as well as Finnish-Estonian), The East Slavic area (Russian- Byelorussian, Ukrainian), Czechoslovakia (Czech and Slovak), Yugoslavia (Slovenian, Serbocroatian, Macedonian), Spain and Portugal (Castilian, Catalan, Galician, Portuguese), and in areas with different Turkic languages. See Décsy 1973.188 and 196. — Gy. Décsy

067 Modern Language Association was founded in 1884. It is a very large organization (about 30,000 members) of teachers of language and literature, centered primarily on modern European languages. Publications of the MLA (PMLA 98 volumes up to 1983) almost exclusively draw on European and American literatures, with rare indication of world-rank languages in Asia and Africa. Some pedagogical orientation is well aimed at teachers of French, Spanish, German, etc. in high schools and colleges in particular. The organization also serves as parent to formally smaller groups of teachers of German, Arabic, Japanese, classical languages, and others (in the last years, especially of minorities). "Modern Language (Studies)" seems to be a loan translation of German *Neuphilologie,* which is to be understood as an opposite of Classics (*Klassische Philologie*). Address of the MLA: 62 Fifth Avenue, New York, N.Y. 10011. — J. R. Krueger

068 Mongolia Society An organization of 200-300 students and specialists in all aspects of Mongolian society and studies, with considerable linguistic emphasis along philological lines. It publishes monographs as well as *Mongolian Studies* (*Journal of the Mongolia Society,* seven volumes up to 1983). Some interests include the study of modern structuralist linguistics of Mongolian, traditional comparative linguistics (in Altaic frame, see Entry 001), dialect studies and text analysis or translation. Address: P.O. Drawer 606, Bloomington, Indiana 47402 U.S.A. — J. R. Krueger

069 Multilingualism: Natural and Acquired Multilingualism (polyglottic abilities) became a fascination of the last two decades. Lorraine Obler and Martin Albert dedicated a book to the neurolinguistic/anatomic consequences of the phenomenon (Benderly 1981). It seems that grammatical bit-groups of foreign languages are stored partly in other areas of the cortex than vernacular imprints. It seems, further, that there are differences between a natural and acquired multilingualism (or bilingualism). In natural multilingualism L_1, L_2 and L_3 are, in principle, spoken at a mother tongue level (L_m). In acquired multilingualism, the L_{2A} (in contrast to an L_{2N}) never reaches the level of a real L_m competence. It is an empirical fact that mother tongue acquisition takes place before the maturation of an adolescent to an adult (generally, before the 16th year of life). The competence grade of the acquired second language depends on the quantitative storage ability of the human brain of the individual or on inherited (traditional) capabilities. It is an essential question whether L_1, L_2, L_3, etc. are in a basilect, a mesolect or acrolect relationship to each other in the multilingual mind. Full acrolect multilingualism seldom occurs. The most common types of multilingualism are: mother tongue (L_m) at the acrolect level, L_1, L_2, etc. at the mesolect or basilect level. In developing countries, the mother tongue appears in most cases as a basilect or mesolect, the L_2 as an acrolect. Special attention should be paid to the natural multilingual territories of the earth. As exemplary cases I mention here: the Caucasus, the Carpatho-Ukraine and the old Baltic Provinces of the Russian empire. The Caucasus (an area of ca. 60,000 square miles) was named by early Arab geographers the "Mount of Languages", and the Romans had to employ 150 interpreters there (according to contemporary reports). In that area (also called *Elbrusbund*) about 50 languages are spoken by approximately six million people (Décsy 1973.2). In the Carpatho-Ukraine (ca. 4,000 square miles, one million people, mostly Ukrainians) there is no point from which the vernacular territory of the following languages would be farther than 60 miles: Hungarian, Rumanian, Polish, Slovak. Besides these languages, the knowledge of Russian, German, and Latin was also instrumental. The local language (basilect) is a Ukrainian dialect (regiolect), a variation of the North-based official standard Ukrainian. Greek was one of the *linguae sacrae* of the Orthodox Church in the area (besides Church Slavonic and Latin; the latter was accepted by the "uniat" with Rome for theological education in the 17th century). Yiddish also has been well known in the area. That means that a member of the Carpatho-Ukrainian "intelligentsia" in the 19th century had to learn at least eight to ten languages in a natural way, mostly in contact with mother tongue speakers. The area produced many phenomenal polyglots both in Austria-Hungary and Russia. Another pivotal multilingual "breeder" of Old Europe were the Baltic Provinces of the Russian Empire. There were three strong basilects in the area (Estonian, Latvian and Lithuanian). The ruling class (landowners, urban population) has been German since the 14th century. The provinces belonged to Sweden in the 17th century. After that they came under the control of Russia. The aristocracy spoke High German and, since the end of the 18th century, also Russian at an elaborate level. However, many Germans continued to use their original Low German type home languages (or its mixed variations) in their family life. French was an obligatory second language everywhere in Russia. Educated people there in the 19th century were taught French in high school (as in Germany where "Schulfranzösisch" connoted good French speaking abilities acquired at the "gymnasia"). It is amazing how easily and well representatives of these multilingual territories use and learn foreign languages even today (often at a native speaker level). In contrast to it, teachers of French, German and English in Europe often have shown poor ability to speak these foreign languages in spite of university graduation and many years of teaching practice in high schools (amusing case studies from Czechoslovakia before 1938 in Vildomec 1963.224). Apparently, multilingualism has strong social (traditional) and psychological settings (instrumentality, tradition, personal abilities). Man is, basically, monolingual. However, we estimate that about 20% of the world population has had to be multilingual (bilingual) since glottogonical times. Today, the number of multilinguals on the earth amounts to about 920 million, cf. Entry 073. — Gy. Décsy

070 -nesses *Americanness, Englishness* and *Indianness* were used by Irene F. -H. Wong (in: Pride 1982.263) for designation of the American (U.S.), British (U.K.) and Indian variety of English (as a First Language in America and Great Britain, as a First or Second Language in India spoken at a native speaker level with some local color). Further useful qualificatory terms would be *Europeanness, Frenchness, Germanness, Swed(ish)ness, Scandinavianness, Russianness, Italianness, Spanishness, Mexicanness, Brasilness,* etc. The terms indicate First Language Level (= Acrolect) Usage with local color (nuance) which is, in any case, far from Creole or Pidgin.

— Gy. Décsy

071 Neurolinguistics seems to be the most appropriate term for studies carried out under different names (Language and Brain, Neurobiology, Biolinguistics, Cerebrolinguistics, Linguistic Neurology, Corticallinguistics, Bit Storage in Human Brain, Brain Architecture, Paleoneurology, etc., see Harnad 1976) concerning the nervous and mental implications of human speech. Since 1861 (Broca's discovery of the anterior speech cortex) and 1874 (Carl Wernicke's localization of the sensoric part of the speech center) it has been recognized that the brain (cerebrum) is (in addition to the larynx, lungs, mouth cavity, nose, teeth, tongue, lips) an important part (organ) of speech. Neurolinguistic studies were strongly intensified in the '60s (see Harnad 1976); however, the most important question, how the concepts (notions, bits) are stored in the brain, remained unanswered. Some topologically oriented works on the brain, comparative anatomical investigations (brain of primates) and paleoneurological contributions have helped linguistic investigations only a little. More recent brain research abandons the earlier thesis that the language center (speech center) is topologically strongly (and in each individual case similarly) centralized. The brain activity in speech is probably more decentralized than neurolinguists thought several years ago: Broca's and Wernicke's areas are only important accumulation centers; however, they are not the exclusive organs of speech dispatch. The unilateralization of the (originally) bicameral mind into a reasoning left and emotions-directing right hemisphere (for the left-handed, generally vice-versa) is no longer an unchallenged dogma by any means. Important new topographic findings indicate that the nervous centers for the tacteme are mainly (or originally) placed in the so called "Reptile-Brain", the pheromemes in the "Limbic System", and reasoning (centers for optic and acoustic signs) in the cortex (Neopallium, Sagan 1979.61). This corresponds (in terms of evolutionary theory) to the phaseological arrangement of the sensual channels (tactemic, pheromemic, acoustic, visual). Emotive interjections (pain, hilariousness and, with them, such aglossal elements as tone and stress) are connected with the limbic system. Therefore they must be older than the articulated vowels and consonants (stored in the cortex). According to David Baltimore, the Nobel laureate, "the message of the science over the last four or five years is that there are very powerful chemical substances in the brain that mediate things we consider behaviour—psychological states, sleep, waking, nervousness, whatever" (*Psychology Today,* February 1983, p. 5). It seems that the chemical substances are responsible for the emotional (and therefore original and vital motoric devices) and the electric (ectric) imprints for the reasoning (intellectual) activities. The difference between "chemical drips" and "electrical blips" (Begley 1983.40) is probably based in evolution. The animal brain apparently assimilates only a very small number of "blips". The neurons (consisting of tail and axon) are the relay stations of the brain, and the future challenge of ectric channel communication is a direct transmission of the message from the brain axons of one individual to the neurons of another person. Electric activities of the neurons (axons) are often combined with chemical message transmission (to the neighboring neurons); the electric activities are also measurable and observable (electroencephalograms, PET scans, CAT scanners, and nuclear magnetic resonance equipment which exhibit three-dimensional pictures). The next step is to magnify these pictures to the size of a movie theater auditorium. However, they will not extensively enrich our knowledge concerning the storage techniques of sounds, words or sentences in the brain. The long standing assumption of psycholinguists, that words would be stored either according to phonetic or according to semantic associative sets, will turn out to be erroneous. In the brain probably only "notional" bits (concepts, Begriffe) and not autonomous sound sequences are stored. The connection of bits with a certain sound sequence is important, however, only secondarily. The concept is very old and basal (fundamental). Its soundsequential counterpart is, however, new and only peripheral. Concept is deep structure; sound sequence is surface structure and variable according to given codes. No Englishman would confuse *pain* and *pan* because in the brain the (completely different and unconfusable) notions of these objects are stored and not their phonetic signs. *Pain* and *pan* are similar only for foreigners whose English is based primarily on sound sequences. However, it is easy to confuse a *spruce* and a *pine,* a Mozart opera and a Rossini opera: these are *things* which are similar. In any case, neurolinguistics is the most promising area of language science, even if it cannot offer much to the linguists. The bit-storage in the brain is probably not very different from the bit storage on the computer tape: its explanation is possible, but technically not very important. — Gy. Décsy

072 Nostratics The term was created by the Danish linguist Holger Pedersen (1867-1952) in 1903 from the Latin pronoun derivative *nostrās* ~ *nostrātis* 'inland, indigenous, domestic' (adjective). I quote here his statement in the German original along with the English translation of J. R. Krueger:

Sehr viele Sprachstämme in Asien sind zweifellos mit dem Indogermanischen verwandt; vielleicht gilt das für alle diejenigen Sprachen, die man als ural-altaischen bezeichnet hat. Ich möchte alle mit dem Indogermanischen verwandten Sprachstämme unter dem Namen "nostratische Sprachen" zusammenfassen. Die nostratischen Sprachen nehmen nicht nur in Europa und Asien einen sehr breiten Raum ein, sondern sie erstrecken sich auch bis nach Afrika hinein: denn die semitisch-hamitischen Sprachen sind meiner Ansicht nach zweifellos nostratisch. Bei dem Nachweis der Verwandtschaft der nostratischen Sprachen müssen nicht nur die Wurzeletymologien und überhaupt alle etymologischen Spielereien fern bleiben, sondern man sollte sich überhaupt nicht bemühen, eine Masse von Stoff zu haufen. Man sollte sich vielmehr auf die rationelle Betrachtung einer Reihe von Pronomina, Negationen, zum Teil auch Zahlwörtern beschränken, welche sich durch mehrere Sprachstämme verfolgen lassen.	There is no doubt that many language families in Asia are related to Indo-European; this may also apply to the languages which have been termed Ural-Altaic. I would like to propose the collective designation "Nostratic Languages" for all language families which are related to Indo-European. The Nostratic languages occupy a vast territory not only in Europe and Asia but they extend up to Africa: the Semeti-Hamitic languages are indubitably Nostratic in my opinion. When proving the relationship among the Nostratic languages, we should stay away from not only root-etymologies and all kinds of etymological games, but also not make efforts to accumulate quantities of material. We should limit ourselves to a rational review of pronouns and negational forms, including in part the numerals which can be traced through a number of language families.

This statement was made in a review in which Pedersen reported in German on the *Forstudier til tyrkisk lydhistorie* by Vilhelm Grønbech (Copenhagen 1902). The review was printed in *Zeitschrift der Deutschen Morgenländischen Gesellschaft*; the quotation is from p. 560 of vol. 57 (1903). Although Pedersen has never dealt with Nostratic comparisons profoundly during his long life, his coinage later became a slogan of phyletic linguistics. His cursory remarks were sufficiently enigmatic to allow basically different arbitrary interpretations. For Pedersen, Indo-European was the center of the Nostratic megaphylum (see Entry 063). The idea that etymological principles should be relaxed for pre-proto-linguistic investigations has never been popular with professional comparativists (at least with Indo-Europists and Uralists). The real followers of Pedersen thus came either from Russia (Dolgopolskij, Illich-Svitych) or from Turkology (Menges) where the sense for "megareal connections" has deep roots. Menges' Nostratic concept is Turkic-centered with strong emphasis on ties between Altaic (Entry 001 and 133), Japanese and Dravidian (Menges 1975). In a broad sense, Nostratics comprises the Afroasiatic, Indo-European, Dravidian, Uralic, Altaic (including Japanese and Korean), the Paleosiberian, Caucasian and all Amerindian phyla: it is the megaphylum of the white man and of his closest congeners. The Amerindian aspects of Nostratics were investigated especially by Karl Bouda and O. Sadovszky (partly from a Uralic point of view), the Indo-European-Korean resemblances by Koppelmann in 1933, and the Japanese-Uralic connections by Pröhle (1916-1945) and Kazár in 1980. According to Wescott, Nostratics is misleading because it *ex*cludes important phyla (Wescott 1980.169). However, a further broadening of the concept would equate Nostratics with Global Linguistics (Entry 035). The coinage Nostratics, doubtlessly, encompasses a certain white man parochialism embracing all areas (except, perhaps, for China) which played an extraordinary role in the development of human culture and consciousness. In any case, if we have Nostratics, there must also be a "Vestratics". The question is, how to define the latter. It would be meaningful perhaps to describe the Paleo-Languages of the tropical area in Africa (especially the phylum Khoisan, Entry 045) as "Vestratic": these archaic units apparently represent the remnants of the primordial linguistic communities of the earth. The series "Bibliotheca Nostratica" (founded in West Germany in 1978) furthers the interphyletic investigations in the broadest sense of the word. — Gy. Décsy

073 Number of Languages of the World Detailed information can be found in *Statistics* 3.1-3.3 (pp. 131-135 in this book). From that source we tabulate the following data for quick reference:

Rank	Position	No. of Languages in the group	Speaker Number in millions		Group Name spelled out
			in group	added to previous group	
1.	1-12	12	2,691	2,691	Top twelve of T200
2.	13-61	49	1,514	4,205	Upper Middle of T200
3.	63-142	81	382	4,587	Lower Middle of T200
4.	143-200	58	91	4,678	Bottom of Top 200
5.	201-700	500	12	4,690	Registered
6.	701-2800	2100	10	4,700	Unregistered

T200 = Top two hundred (see *Statistics* 3.1). The world population number was 4.6 billion as of December 1982. One hundred million people were counted twice in the speaker number groups (because of bilingualism and multilingualism). If we deduct this one hundred million from the total individual speaker number of the world in our statistics (4.7 billion) we arrive at the actual speaker number of 4.6 billion. The 2,600 languages in group 5 and 6 are spoken in each case by less than one million people. The average speaker number in group 5 is 24,000 (fluctuating between one million and ca. ten thousand); in group 6, the average speaker number per language is about 4,800 (fluctuating between 10,000 and one person). Under the heading "Group Name spelled out", "Registered" means that an adequate scientific description of the language exists. "Unregistered" means that (in most cases) we possess only vague information about the particular language and/or people. Generally, the smallest languages (dwarf-languages, mini-idioms, etc., as the "unregistered" are sometimes called, see Décsy 1973.3) are well described in Europe, the Caucasus, North Asia (Siberia), North America, and Australia. White spots are especially evident in Central Africa, South Asia (Sino-Tibetan in Burma), parts of Oceania (New Guinea) and South America. White spot area research is carried out with considerable success by the Summer Institute of Linguistics (Entry 116). — Gy. Décsy

074 Number of Languages of the World Is Constant It is our assumption that around thirty-five thousand years ago, when biological and social conditions were similar in different parts of the world (including the Americas and Australia) about 2,800 clan-size languages came into being independently of each other. From time to time during later evolution approximately the same number of languages would disappear (due to assimilation with other, more powerful languages) and come into being through affiliation (division) of previously extended (powerful, successful) language communities (e.g. Indo-European, Uralic). This process kept the number of languages of the world at relatively the same level. It probably eliminated many languages with special idiosyncratic structure and equalized the linguistic design of the winner languages (Entry 005) and their subjugated idioms. The result was a unification (simplification, synchronization, *Gleichschaltung*) of the universal human cross-language structure. — Gy. Décsy

075 O.K. vs. K.O. Even in modern times, man needs simple expressions for the very old dichotomy of *good/bad* (described as "Paläoleitsememe" on the basis of *warm/cold* in Décsy 1981.35-36). O.K. is a frequently used word not only in English but also in many languages which borrowed it from the Americans or British (e.g. Korean, Japanese, German, even Hungarian). O.K. is probably the sound sequence pronounced most frequently by the largest number of people in the world. The etymology of the term was explained by Allan Walker Read (b. 1906) and P. J. Maher (b. 1933). According to them, O.K. is a product of an "abbreviation mania" in Boston, Massachusetts in the late 1830s. It originated from a

British military expression transferred to Boston and New York (at that time, the dialects of both cities were strongly influenced by the British). As P. Maher writes: "Where U.S. military yells, after Appell/Roll call 'All present and accounted for', H/M (His or Her Majesty's) services yell: 'All Correct'." The London dialect "closes and rounds the vowel *a* and drops the *l*" resulting in "a facetious spelling *oll keerek*". Another variation of the London 'all correct' is *orl korrect* (Kilpatrick 1983). One of these colloquial forms made its way to Boston and New York where citizens spoke "the most Londonish (18th-19th century) of all U.S. dialects" (Maher 1980). There the term was abbreviated to O.K. R. W. Burchfield, editor-in-chief of the supplements of the Oxford English Dictionary, agreed with this explanation; however, it is not widely accepted (see Kilpatrick 1983). The question arises whether K.O. (from knock out in boxing) will have a similar impact. There have been some "debuts" of it, cf. "a demerit like this could K.O. a romance" (Landers 1982). — Gy. Décsy

076 -olinguistics *Psycho*linguistics (Sprachpsychologie), *socio*linguistics (*Sprachsoziologie,* Entry 106), *ethno*linguistics, *neuro*linguistics (also biolinguistics, as part of sociobiology, see Wilson 1975) were introduced in America in the '60s and '70s. *Pedo*linguistics, 'children's language', is apparently an innovation of the Czech phonetician Ohnsorg. Under the title "Colloquium Paedolinguisticum" he organized symposia devoted to the study of newborn humans. *Pädo*linguistik occurred in German in 1977 (see Oksaar 1977). *Geo*linguistics is a possible synonym to linguistic geography (Sprachgeographie) and *eco*linguistics to language environment research. We also note *zoo*linguistics (Sebeok's coinage in 1963, see Sebeok 1972.156) and *anthropo*linguistics (a short form of *Anthropological Linguistics,* see Entry 056). — Gy. Décsy

077 Omnicomparatism A useful term for the comparative part of Global Linguistics (Entry 035). All features (taxemes, etc.) of a given language must be compared with all other features of the same language and all other languages of the world. Only in this way can we reach reliable results on the ramification of the so-called Cardemes (Entry 007) and the inner structure of languages. It is not the primary purpose of an Omnicomparatism to establish genetic relationships between different languages of the world — as inadvertantly assumed in some European publications, comp. *Innsbrucker Beiträge zur Sprachwissenschaft,* Band 10, p. 122, edited by Wolfgang Meid, 1973. — Gy. Décsy

078 Origin of Language Hypotheses regarding the origin of language must first be concerned with the question whether all known languages go back to a common origin (monogenesis) or to two or more primeval languages (polygenesis). A comprehensive study of language relationships on a global scale was begun by Morris Swadesh and was published posthumously (1971). He had discussed aspects of this earlier, and his linguistic map of the world indicates the partition of groups given in terms of minimum centuries of separation (1967:88), this being the shortest period of time they could have been separated and still have developed to be so diverse. Belief in 'universals' in language has strengthened belief in monogenesis.

— C. T. Hodge

079 Orphamily A Pomato Word compounded from *orph*an and *family* (see Entry 091) used, for example, in connection with a group of Amerindian languages (Austerlitz 1980.7). It designated languages with little or no genetic relationship. Japanese and its close congener, Ryukyu, could also be considered an orphamily (Austerlitz 1980.8). — Gy. Décsy

080 Paleo-African Languages There are four phyla in Africa: Afroasiatic, Niger-Kordofanian, Nilo-Saharan and Khoisan (Ruhlen 1976.59-66). Although Khoisan seems to be the most archaic of the four phyla (see Entry 045), it cannot be excluded that in the little known conglomerates of the other three phyla there are also idioms representing pre-Nilo-Saharan, Pre-Niger-Kordofanian and Pre-Afroasiatic languages. In other words we expect the discovery of such languages in Central Africa which have a similar phaseological status there as Basque in Europe, the Caucasian or Paleosiberian languages in Asia. The identification of such languages in Africa is one of the most urgent tasks of an ascendent language origins research. — Gy. Décsy

081 Paleodemography is the study of prehistoric migrations of people. It seems that human development originated in one place on earth: East Africa (Kenya, Tanzania, etc., see Leakey's newer publications in References). According to newer views, this occurred between one and four million years ago. A million years, in this case, is not highly important because development before ca. 100,000 years ago was very slow. There is little difference between the prospective humans dating from three million and million years. The human brain reached it presentday size about 100,000 years ago. Prior to that, migrations took place from East Africa to the other parts of the continent (to the South, which is a relatively small territory) and to the North (Near East, Europe and Eurasia). The Sahara was inhabited until about 10,000 B.C. At that time North Europe and North America (from Charleston, South Carolina, to Los Angeles) was still covered with ice. North Siberia, on the other hand, was ice-free until the biblical deluge (ca. 10,000). The flood may have resulted from a shift of the earth's axis (perhaps due to the impact of an extraterrestrial body). According to the theory of Richard Fester, the pre-diluvium North Pole must have been located in South Greenland. The impact of the proposed meteor "pushed" it to its presentday position (details in Décsy 1977.30-31). In subsequent ages the Sahara dessicated; parts of North Europe and North America became ice-free and developed a moderate climate; North Siberia, meanwhile, became ice-covered. The sea level rose to cut off many of the land connections between continents. The "White Bridge" between Scandinavia and Alaska as well as the Bering Sea "dam" sank into water. The Spitsbergen and some of the further islands, however, remained intact. North America, which had been populated from about 50,000 B.C. by migration across a land passage from North Eurasia, became sealocked. Due to the climatic changes most North Asian peoples migrated to the West or to the South. These migrations intensified cultural development and social life. Many clan-size languages disappeared while a small number of conqueror peoples established themselves in Eurasia: the Indo-Europeans in the West, the Uralians (Finno-Ugrians) in the central area, and the Chinese, Turks, Mongols and Japanese in the East. See also Linguistic Paleontology (Entry 056) and Eurafricanic Connection (Entry 028). — Gy. Décsy

082 Paleo-Languages Idioms representing the direct continuation of very old languages from the glottogonic, archelinguistic or paleolinguistic times (ca. 35,000-10,000 B.C., see Diachronic Linguistics, Entry 024). The term is patterned after the name "Paleosiberian", a group of arctic languages in Siberia and North America (Ruhlen 1976.82-83). Basque (in Western Europe, France and Spain) and the protoform of the 37 Caucasian languages have already been regarded by previous research as "Relict-Languages" from the pre-Indo-Europoean, pre-Uralic and pre-Altaic time in Eurasia. Our problem is whether it is justifiable to list also proto-Indo-European, proto-Uralic, proto-Semitic, etc., as Paleo-Languages instead of phyletically connecting them with each other or with other phyla (see Nostratics, Entry 072; Lislakh, Entry 059; Lisramic, Entry 060). A large number of "Proto-Languages" may have survived, especially in remote areas of tropical-equatorial Africa. In my opinion, Japanese—one of the most successful modern languages of Eurasia—also represents a Paleo-Language (see *UAJb* 55.162). — Gy. Décsy

083 Paleo-Proto-Sememe This seemingly pleonastic term is a translation of German *Paläoleitsemem* coined by myself in 1981 for the designation of the most archaic contranyms (see Entry 020) which exist in dichotomic oppositions. Phaseologically they must have been sub- or prehuman (Décsy 1981.35). They are lexemes connoting existentially important primitive concepts of everyday life and of the physical environment. As such they are certainly known to animals as well (as reflexes of the nervous system operating on an emotional-chemical basis without conscious effort). While non-primate mammals can "recognize" about 40-50 concepts, the primates can store about 150 to 300 such sememes. For humans, they become the basis of metaphorical unfoldings and abstraction. Some primary Paleo-Proto-Sememes are warm/cold, bright/dark, stay/go, my/your, here/there, etc.; strictly human unfoldings are good/bad, god/devil, give/take, laugh/cry, happy/sad, etc. All these lexemes are pre-sound-sequential (and, naturally, pre-grammatical). Details are to be found in Décsy 1981.35-40. I remark that 'warm' also has the meaning 'good' in languages of the tropical areas where an opposite semantic value should be expected. — Gy. Décsy

084 Paranyms Words with common origin and similar meaning, however, a slightly different spelling and/or pronunciation, such as English *affect* and *effect* (see Minajeva & Fedenen 1982). It is an important concept in the analysis of the Greek/Latin and French elements of English, cf. the doublets *hotel* and *hospital* (both from Latin *hospitale* 'inn, apartment for strangers' etc.), *chamber* and *camera* (both from Greek *kamara* 'vault' via Latin; *chamber,* of course, with the French modification *k* > *ch* before velar consonant); cf. also *chair, cathedra* and *cathedral* (from Greek *kathedra* 'seat, bench'). Such doublets are etymologically the carriers of an enormous amount of information concerning material culture and sometimes curious semantic developments. — Gy. Décsy

085 Paris Prohibition In 1866, the *Société Linguistique de Paris* included the following statement in its statutes: "La Société n'admet aucune communication concernant, soit l'origine du langage, soit la création d'une langue universelle". (See Jespersen 1922.96.) This enactment of aversion against language origins research and a "universal language" has never been withdrawn (Brekle 1970.8). — Gy. Décsy

086 Phaseological Grammeme Arrangement Grammeme is short for grammatical category which is a preferred term of Russian linguistics. In principle it is a collective designation of the parts of speech as well as the parts of the sentence (including all cases of the noun and all verbal forms). Phaseological in the title means 'in terms of evolution theory'. In an evolutionary set, some categories came into being as variations (co-forms) of other (older) categories. There is little doubt that the interjection is the oldest "grammatical category". The set then continues as follows: *name* (proper name, because it has no connotation), personal pronoun *1. person* and *2. person,* demonstrative pronouns *this/that* (semantically often close to *here/there*), personal pronoun *3. person, substantive* (noun); the *verbs* and the *numerals* were originally only conceptual subgroups of the substantive (noun; meaning activity and numbers). Probably the vocative (or the vocativic nominative) was the oldest "case", and the imperative the oldest mood. The indicative, which is the "report" mood (in contrast to the commanding imperative) is presumably younger than the imperative: it is apparently a big abstraction not to command when we speak. The phaseological arrangement of the other cases, moods, genders, etc. remains questionable and is, basically, not very important; they all appeared later and originated from compounds (substantive + substantive, substantive + pronoun, verb + pronoun, etc.). However, it seems to be self-evident that the tense (tempus) and the adverbs (adverbials) are the youngest grammatical categories. The temporal adverbs (adverbial constructions) are certainly younger than the local and the modal adverbs (especially the causal and final), perhaps even younger than the temporal ones. Actually, we use *local* adverbs (*in* two weeks, *till* yesterday) in temporal meaning. The modal adverbs have spatial roots (*for* this reason, in order *to* achieve the goal, etc.). Both time and modality (causality, finality) are only the metaphors of space; their expression is primitively spatial. Many languages do not know the grammatical categories of time and modality at all. In this sense the Indo-European, Semitic, Uralic, etc. grammar and syntax is very sophisticated and probably unique, and therefore inappropriate to be the basis of a universalistic approach. See Décsy 1981.40-72 (for the object as grammeme see Entry 110). The priority of the pronoun before the noun has already been emphasized by Peirce; it was Révész's and Höpp's idea that the imperative/vocative are the precursors of the indicative (details in Décsy 1981.65); concerning general problems of the "grammeme genesis" cf. Décsy 1981.40-72. — Gy. Décsy

087 Pheromeme In 1959 P. Karlson and M. Lüscher created the term *Pheromone* as a "labie" (Entry 046) from Greek *phero* 'to carry, to bring' and from *hormone* 'chemical substance formed in some organ of the body and carried to another organ where it has a specific effect' (Greek *hormōn* is the present participle of *hormaein* 'to stimulate', cf. Old Indic *sármah* 'stream'). The original article was printed in the journal *Nature* 183.55-56, 1959. Pheromon became so popular that it was used as a synonym of fragrance in commercial advertisements as early as the seventies. From *pherom*one and phon*eme* I created *pheromeme* in 1981 for the collective designation of tasteme/gusteme and olfacteme/odoreme (Décsy 1981. 27-28). *Pheromeme* is practically the same as *chemical sign.* — Gy. Décsy

088 Phyletic Linguistics The term is based on an article of Wescott (see 1980.195). It designates the comparative study of the roughly 28 phyla of the earth (see Statistics 3.3) embracing mainly the preprotolinguistic, paleolinguistic and the archelinguistic epochs (see *Diachronic Linguistics,* Entry 024). The earliest and most promising initiative toward Phyletic Linguistics was the introduction of Nostratic Studies (see Entry 072), carried on after Pedersen by K. H. Menges, V. M. Illich-Svitych, A. B. Dolgopolskij, J. Rahder, H. Koppelmann and others (see names in References). Indo-Europeanists always have harbored suspicions against Phyletic Linguistics; however, the liberal spirit of the United States and a

global view of the world languages fostered phyletic studies. We should, however, not forget that phyletic studies remain highly hypothetical both in method and results. Nevertheless, phyletic studies are the most fascinating and most promising part of modern linguistics, important both for ascendent Language Origins Research as well as for Global Linguistics.
— Gy. Décsy

089 Phylum A classificatory unit of Global Linguistics taken over from zoology and botany and widely used in America since the '60s (see Voegelin 1977). As a working hypothesis, the 2,800 languages of the world are assigned to 28 phyla (see Statistics 3.3). A coherent genetic relationship has been proven from the 28 phyla only for Indo-European, Uralic, Dravidian, as well as for some sub-phyla of Afroasiatic (Semitic) and Sino-Tibetan (Chinese). Most phyla are large units set up more on the basis of areal connections than kinship; a genetic relationship between them is in changing degree possible, probably or hypothetical. Most phyla serve only as working hypotheses for the classification of the languages of the world. A synonym for phylum is stock; very large phyla or their combinations can be called super-phyla or superstocks, cf. Entry 072, Nostratics. The phyla system given in Statistics 3.2 of this book is based on Greenberg's work and on Ruhlen 1976; they are open to criticism. — Gy. Décsy

090 Polygenesis vs. Monogenesis in Language Origins The philosophical question can be solved by proclaiming sound production ability monogenetic and sound sequence creation strongly polygenetic (Décsy 1977.81). Most universals (globemes, unemes) can be found in the monogenetic section of language (phonetics, tones, quantity sound, stress, etc.). The idiosyncrasy begins in the sound sequence producing (vocabulary creation), grammar, and unfolds in syntax and style. — Gy. Décsy

091 Pomato Words "Tomato plus potato equals pomato": Kansas State University scientists have successfully crossed tomatoes and potatoes to produce "pomatoes" (*The Indianapolis Star,* Friday, February 4, 1983, p. 4). Compounds of this type are very popular as trade names, business signs or innovations with appellative character. H. W. Flower called them telescoping words (*Modern English Usage,* see *electrocute*). Jean Praninskas saw in graphemic haplology (contraction) the characteristic feature of such words (Praninskas 1968.28). Here are additional examples collected mostly in the Midwest United States: servicenter (identified also in Germany in the '70s), insurancenter, informania (*infor*mation *mania*), Illiana (*Illi*nois and Indi*ana,* closely connected areas on opposite sides of the state border), Kentuckiana (*Kentuck*y and Ind*iana*), cf. also the place names Texarkana (*Tex*as and *Arkan*sas, a city in Texas close to the state limit), Calexico (*Cal*ifornia and M*exico,* a city on the border), Kansarado (*Kans*as and

Colo*rado*). A bumper sticker that struck my eye stated *I lovermont* (I love Vermont). Soap opera puzzles were called *soapuzzle* in a magazine. The cybernetic advantage of such creations is that they make the compound soundsequence shorter, yet they spell the two words in full. The longer the common part the more impressive the compound (*I lovermont*). In Reagonomics e.g. just one consonant (*n*) is the "sticking" part (Reaga*n* and eco*n*omics). There are many words of this type in use as trade names; they are registered trademarks and cannot be quoted here (Praninskas 1968.28).
— Gy. Décsy

092 Prestige Language The socially higher placed dominant language in the assimilation process or in bilingual contacts. A sociolinguistic concept, see Samarin 1966.188. — Gy. Décsy

093 Primordial Home Research The English term for German *Urheimatforschung*. Generally, the appropriate studies are carried out with the method of Linguistic Paleontology (Entry 056). Archeology plays only a minor role therein. Some rather well identified Primordial Homes are: 1. The *Indo-European* Primordial Home in Western Europe (according to Thieme between Odera and Weser, according to Schmid in Lithuania-Latvia) around 4,000 B.C. 2. The *Uralic* Primordial Home (Volga-Bend and Central Ural Mountains or east of them) around 4,000 B.C. 4. The *Germanic* Primordial Home in Denmark, South Sweden and Schleswig-Holstein (Northern Germany) until about 200 A.D.. 4. The *Slavic* Primordial Home between the Rokytno (Pripjet) Swamps and the North Carpathian Range until 400 A.D. 5. The *Balto-Finnic* Primordial Home between Riga and the Ladoga Lake until 500 A.D. It is regrettable that in connection with the other phyla in Eurasia (Turkic, Tungus, Mongol) or in Africa no attempt has been made at identification of Primordial Home areas (at least, not with the method of Linguistic Paleontology). The view that the Primordial Home of the *Altaic* peoples was in the Altai Mountain Range (Miller 1980.37) has not yet been proven. However, it is a reasonable assumption that the *Indo-Iranian* Primordial Home must have been in South Russia (roughly between 3,000 and 2,000 B.C.). The remnants of Indo-Iranian peoples of the area were annihilated by the Huns in the 3rd century A.D. (see also Entry 056). — Gy. Décsy

094 Redundancy Cybernetically, "*redundancy* is the degree to which a channel is not efficiently utilized to transmit information" (Hailman 1977.51). This is an *internal* channel concern not affecting the utilization value of the five sensual channels in their relationship to each other. Every channel has its own redundancy calculuses. — Gy. Décsy

095 Relatability The ability of a certain language feature to be connected with a similar feature of another language. Such a comparison can result in qualifications like geneme, areme, typeme or tycheme (Entry 007). Uneme and indeme are not relatable. The latter is found in only one language of the world and the former in all languages of the world. The unrelatable features of indemes and unemes cannot be used for language classifications (nor for any group building whatsoever). The term relatability was apparently coined in the '60/'70s, see Sohn 1972. — Gy. Décsy

096 Religious Multilingualism in Europe The main languages of the ancient Palestines of the New Testament time were: Aramaic, Hebrew (written; spoken only in synagogue services), Greek and Latin (Bryant 1977.318). The Israelites spoke Hebrew in everyday life only before the Babylonian Captivity; after their return they "switched over" to Aramaic (Bryant 1977.82) which was the official language of the Assyrian diplomacy and one of the main "imperial" languages of the Near East in pre-Hellenic time (ca. 10 million speakers in A.D. 1, 6.25% of the world population then). The Greek language arrived in the region with Alexander the Great's conquest in 333 B.C.; Latin was "imported" after the conquest of Pompey in 63 B.C. Aramaic and Hebrew, although related, were so different that there was no mutual intelligibility between them at the time of Jesus' birth (see Bryant 1977.51). Most of the Old Testament was written in Hebrew; only a few parts were composed in Aramaic (Bryant 1977.82). "It is probably safe to assert [that Jesus] habitually spoke Aramaic and occasionally Greek, and read and could speak Hebrew" (Bryant 1977.51). The whole New Testament "was composed in Greek, the language of ordinary intercourse in the Hellenistic world" (Bryant 1977.82). Apparently, the mother tongue of Jesus was Aramaic, and like most Jewish men (but not women) he learned to write and speak Hebrew (in the synagogue services); presumably, he spoke Greek as a "Second Language". Pilate's famous notice (Jesus of Nazareth, the King of the Jews, John 20:19) was written in Hebrew, Latin and Greek and put on the cross before the crucifixion (however not in Aramaic). Jesus was, apparently, the only religion founder who is to be regarded as a passionate multilingual. The linguistic pluralism of the Judeo-Christian world, as well as the tolerance and respect demonstrated by peoples of different languages in Europe, opened the door for a unique democratic and political development of civilization unknown in the area of other (monolingual) religious high cultures. The modern Indo-European invasion of the world is the result of the multilingual Judeo-Christian linguistic tradition which has never made a certain priviliged language the exclusive property of a religious cult. This "psycholinguistic" fact, which programmed our modern multilingual "sociolinguistic" behavior, has never been properly appreciated in language science research. — Gy. Décsy

097 R/L Problems These two consonants display a similar problem for the linguist as the Larynx-group (*ʔ, h, ɦ, gh, ŋ,* etc.). According to the character of articulation they are qualified as "lateral" (*l, l̯, ḷ,* etc.) or "rolled" (trill, flap *r*); according to the place of articulation they appear as dental, alveolar, retroflex, palatal or uvular (French *R*), see *International Phonetic Alphabet* or Ruhlen 1976.55. From a global linguistic point of view it is important to note that Chinese and Japanese have no *r* (they often replace it with *l*), and that the highly respected Western European languages of German, French and English have no real rolled *r* (at least in the obligatory Standard pronunciation). The German "Bühnendeutsch" required a rolled *r*; however, this prescription is no longer followed in the practice of individual actors or actresses (Gerhardt 1981.1-2). In presentday English (both in Great Britain and America) a Czech-like *ř* is rather common in cases like t*ř*ain, t*ř*ial, etc. (Décsy 1983). In both Uralic and Indo-European, there is an alternation *r/l* in cognates in the individual languages (details in Décsy 1977.68). Therefore, it is justifiable to assume an undivided *R/L* (Proto-Liquid Consonant, Urliquidalaut) for the earlier stage of the particular Proto-Languages (or even for the Proto-Languages). Although *r* and *l* have a high sonority saturation (Entry 107), they are generally regarded as unpleasant sound products, especially by poets (see Gerhardt 1981). Lipogrammes without *r* are common both in German and Russian literature, among others (Gerhardt 1981 lists such poems from Derzhavin). From the point of view of the Phonogenesis, the *R/L* is either a very old realization of clicks (which are produced by direct muscle activity of the tongue without air pressure), or they are very young, introduced or reintroduced (like *h* in many cases, see pp. 7-30 in this book) as an ancient (and long forgotten) phonic element in order to serve modern man as well.

— Gy. Décsy

098 Russian and its World Position; Romanization In Statistics 3.1.10 (p. 131) we indicated 115 million native speakers for Russian. According to Soviet sources, 82% of the population of the USSR (270 million in 1982) speaks fluent Russian. This means that the number of active Russian speakers in the Soviet Union is between 220 and 230 million (see Ivanov-Mikhalovskaya 1982.4). The Russian census of 1979 disclosed 137,397,000 native Russian speakers in the SSSR (Shabad 1980.441), 113,522,000 of which lived in proper Russia (RSFSR) and 23,875,000 in the 14 non-Russian SSRs. As statistical simplification, we reckon with 115 million native and 115 million non-native Russian speakers in the SSSR. This implies that 40 million inhabitants of the SSSR are monolingual persons unable to use the Russian language. The Russian language abilities of the 115 million non-native Russians are qualitatively strongly diversified; we guess that about 20 to 25 million speak Russian at a first language level (Entry 069) and seldom use their mother tongue (one of the more than 120 minority languages of the SSSR), usually in family circles. They were apparently counted by the Soviet statisticians as "Russians". The Russian language skills of 90 million Russian speakers in the non-native group are probably limited or inadequate. From a global point of view, Russian is used today in the following functions: 1. *Fist language* of the Russian ethnosociums (115 to 140 million). 2. *Interstate* (*mezhnacional'nyj*) *language* of the fourteen non-Russian SSRs, the 20 ASSRs, the 10 Autonomous Oblasts and the 10 National Regions. All units have linguistically strongly privileged Russian groups (minorities or even majorities). 3. *East Bloc Common Language:* Russian as the primary means of communication for the political and military leadership of Poland, Czechoslovakia, Rumania, Hungary and Bulgaria (altogether 93.3 million people as of 1982). Also Mongolia has to be taken into account here (1.7 million speakers) which increases the number to 95 million. 4. *International Russian:* in all parts of the world outside of the East Bloc (West Europe, U.S.A., Third World, etc.); in our estimate about one million non-Russian people. In category 1 (First language of the Russian native ethnosociums) the status of Russian is firm and unshakable. The literary standard and pronunciation (latter based on the Moscow city dialect) is excellent and elaborate. In oral use there are some trends toward regionalizing (Siberia, North Russia); however, they have not gone as far as, for example, the New Englishes (Entry 058 and Fedorov 1982). *Interstate Russian* (for which the neologism *mezhanacional'nyj* was created in the '60s, see Khankishiyeva 1982) displays a large number of provincialisms in vocabulary and pronunciation according to the non-Russian territories where it is used (and adjusted to local features as: Latvian-Russian, Dagestan-Russian, Ukrainian-Russian, etc., most of these variations were recounted in a series of articles in the last annual volumes of the journal *Russkaya Rech*). The Soviet language policy for *Interstate Russian* (category 2 above) has been proclaimed by several conferences in Tashkent (the most recent held in 1979) regulating that the Soviet Nation as an indivisible unit must have a strongly unified single language; practically, this means an integration of the non-Russian native speakers of the Soviet Union into the Russian native speaker community. With this etatistic principle, the SSSR follows the language policy of the big successful monolingual states (Germany, France, Great Britain, Italy, U.S.A.) as well as of the Empire of the Tzars. Due to this assimilatory policy the speaker number of the Russian language community increased from 1959 to 1970 by 14,901,000 (13%) and between 1970 and 1979 by 8,382,200 (7%; official statistics, see Shabad 1980.441). The quality of the Russian language skills of the newly assimilated remains unverifiable. In the East Bloc probably only a relatively small number of people (the political and military leadership and the professional Russian teachers) have high level (acrolect) conversation abilities in Russian; there are differences here according to the various countries. In Bulgaria and Czechoslovakia (where an emotional attitude toward the Russians always has been positive) a good acrolect level Russian language culture is supposable. In any case, Russian is presently an everyday phenomenon in the life of the 95 million East Bloc speakers (in Poland, Bulgaria, etc., see above) and, technically, Russian could be introduced as a language of the administration down to the county level within several weeks there. In principle, the Soviet Union is monolingual in its relations to the East Bloc countries. This and the low international reputation as well as the poor storage value of Russian in modern technology decrease its chances to become a generally accepted common language in East Europe. English, and even German, are serious rivals, especially in the West East Bloc. The international use of Russian is fostered by the *Mezhdunarodnaya associaciya prepodavateley russkogo jazyka i literatury* (International Association of Instructors of Russian Language and Literature, short: MAPRYAL), founded in 1967 (last congress in Prague in August 1982; presentday president M. B. Khrapchenko, American representative D. Davidson, for details see Shanskiy 1983). A major handicap of Russian is the Cyrillic script, a late (tenth century) offspring of the Greek alphabet. It is much more ecclesially-rooted than the Latin orthography which is pre-Christian (first attestations from the sixth century B.C.), and which always managed to remain basically secular. The Cyrillic script is a shelter of church-oriented Russian nationalism and was originally used besides by the Russians only by the Ukrainians (42 million), Bylorussians (9 million) and Bulgarians (also 9 million); altogether, Cyrillic now serves less than 250 million people (Latin orthography is used by at least 1.8 billion people). In the '20s there were serious considerations to replace the Russian Cyrillic script by Roman (Latin) characters in the SSSR. The main representative of the "Latinists" was A. M. Peshkovskyj. The widely developed plans were dropped in the '30s with the return to the Russian patriotic concepts in the Soviet state ideology. This was, probably, the most serious setback in the Westernization of the country. In Slavic Philology and in modern telecommunications Latin characters are widely used for Russian even in the Soviet Union. A Romanization (Latinization) of the Cyrillic script would increase the international chances of Russian. The Polish or Rumanian (Romanian) orthographies serve as models; both are able to mark the palatality correlation, one of the fearfully guarded phonetic features of Standard Russian. The Telex-script does not indicate this feature; nevertheless, it functions excellently as a Latin character system of the Russian Cyrillic script. — Gy. Décsy

099 Schwa-Problem and Laryngeal Theory has been the main concern of Indo-European Studies for the last half century (Szemerényi 1973). *Schwa* is the German spelling for Hebrew *Sh'wa* indicating the colorless vowel ə (also called reduced, neutralized, subglottal, murmured, unclear, colorless, silent, etc., see *UAJb* 32.169, 1960). Its consonantic counterpart is the glottal stop *?*. Today it is a high frequency vowel in the standard pronunciation of English, High German, Russian, Swedish, Netherlandish, etc. (generally, in unstressed syllables). According to de Saussure the *Schwa* was the universal vowel from which the colored (articulated) vowels (*a, u, i, o, e*) of Indo-European came into being in an unfolding procedure. This thesis had to be corrected so that the *ə* and its consonantic counterpart *?* were the basic undivided vocalic/consonantal noise not only of (Pre-Proto)-Indo-European but of all languages of the world in glottogonic times (Décsy 1977.47). In de Saussure'ss life (1857-1913) Indo-European was the only language family well known on a comparative basis and, consequently, Proto-Indo-European was tacitly regarded as the terminal point of diachronic investigations backward in time. That is the reason why de Saussure "limited" the *Schwa*-Problem to the developmental line of Indo-European. However, according to newer investigations, Laryngeal Theory is a universal glottogonic phenomenon and not exclusively Indo-European (Baitchura 1980.389). Laryngeal Theory is practiced by de Saussure's followers in Indo-European Studies (Kuryłowicz, etc.) in the ramification of an etymological correspondence system apparently leads nowhere. Proto-Indo-European had, assumably, no *Schwa* as an independent phoneme (and also, no glottal stop or *h*). The *ə* in unstressed syllables in the standard pronunciation of English, Russian, High German, etc. (all these languages are or were spoken originally only in Northern Europe) is certainly secondary and late. Except for the Portuguese reduced *a* we have no "murmured" vowels in the superlects of Southern Europe (Italian, Spanish). — Gy. Décsy

100 Script and the Latin Fascination The script (ca. 800 different systems, as early as 5000 years old) in its origin is basically iconic; however, all its variations became symbolic (see Entry 036) through the so-called "rebus-stage" (Wescott 1980.7). The sound script (Lautschrift) is a product of the rebus-operations: the proto-cuneiform sign of Sumerian 'arrow' (sound sequence *ti*) became the sign also for *ti* 'life' because the two words were homophonous (Wescott 1980.7). The sound scripts (like Phoenician or classical Hebrew) indicated only the consonants. In the Near East languages of the 3rd and 2nd millenia there were, generally, only three (in Sumerian four) vowels; however, the number of consonants was substantially higher. Therefore, it was easy to recognize the (unwritten) vowel. The Greeks had six vowels in their phoneme system, and, probably, this was the reason why they began (after the 10th century B.C.) also to write the vowels in contrast to their masters in script (the Phoenicians). The strongly vocalic Greek script was transferred through Etruscan medium to Rome (as late as the 6th century B.C.) where it became, after a graphic and structural transformation of more than one thousand years, the basis of Western writing civilization. At the time of Caesar and Cicero the Latin alphabet had 21 letters:

A B C D E F G H I K L M N O P Q R S T V X

During the rule of Augustus Y and Z were introduced (as Greek loans). Later on CH was added (originally only in Greek, then also in Latin words like *pulcher*). V and I were ambiguous: they stood for *i/j* and for *u/v*, respectively. K was later removed from the system; the general sign for the consonant *k* was C; before *v*, however, Q was written. X was the simple sign for the frequent sound combination *ks*. Generally, the 23 signs favorably covered the 23 Latin phonemes of the first century A.D. The so-called vulgar languages (vernaculars, like German, Italian, French, English, Western Slavic languages, Hungarian, etc.) which accepted the Latin alphabet for intensive use in their mother tongue as late as the 10th century A.D. had more phonemes than the Latin model language (e.g., they also had *č, š, ž, ö, ü,* etc.). They began to use the signs of the Latin "neighboring" (contagious) phonemes for marking the *additional* sounds: C for *č*, S for *š*, O for *ö*, etc. Here the problem of the *critical sounds* was born. I. Kniezsa (1898-1967), the scholar who methodically contributed elaborate works to the research on the "vernacular orthographies" in Europe, regarded as *critical* every sound which did not exist in Latin, or, if it did exist, its letter was used for the marking of a vernacular sound not existing in Latin. Most European vernaculars went their own way concerning the marking of the critical sounds. Thus the well known differences came into being in the European vernaculars of the Latin script area, the most important of which are today (or were before)

sound/ phoneme	English	French	German	Swedish	Polish	Czech	Hungarian
š	sh	ch	sch, st	sk(j)	sz	ss	s
s	s, c	c, ç, s	s, sz	s	s	s	sz
č	ch	-(old)	tsch	tj	cz	cz	ch, cs
c	-(ts)	—		c	c	c	c, cz
ö	—	eu	oe, o	o	—	—	o
ü	—	u	ue, u	y	—	—	ue, u

Generally, the critical sounds were marked by letter combinations (*sh, ch, sch, ss, tsch, eu, oe,* etc.), however, there are diacritic marks as well in some languages (German and Hungarian *ö*, French *ç*, etc.). The oldest diacritic mark of the Latin script was apparently the small tail of G as compared with C (an old Latin innovation). In the Middle Ages, the Czech reformer Jan Hus (1370-1415) suggested in his *Orthographica Bohemica* (manuscript 1406-1412), probably under Hebrew influence (according to J. Balázs), differentiating the similar critical sounds by dots (c—ċ, l—l̇, s—ṡ, etc., see

Schröpfer 1968). As such a system is cumbersome, it was not accepted until the 19th century, although some elements of the suggestions of Hus became *parts* of the Czech, Polish and Hungarian spelling as early as the 15th-16th centuries. First Czech patriots of the 19th century, and then the Neogrammarians saw in Hus's system a perfect materialization of the principle *one sound: one letter.* As a result of language planning (surgical linguistics) the linguistically highly favored diacritic spelling became the basis of the Czech, Slovak, Serbocroatian; Slovenian, Lithuanian, Latvian, Rumanian (Latinized from Cyrillic after 1860) and Turkic (Latinized from Arabic) spelling. French, Polish, Hungarian and German, as well as Danish (compare ø) produced some diacritic marks independently from Hus's tractate. Today there is a disturbing variation in Europe's vernaculars concerning the writing of the critical consonants, disclosing the French spelling as the most complicated orthography of the continent. Technically, the diacritic spelling is less advantageous than the combinative (Décsy 1975.41). István Kniezsa, the founder of comparative orthography research in Europe, regarded the English and the Netherlandish systems of spelling as the most perfect in Western Europe because they do not use diacritic marks at all (the dot on *i* and *j* is not a diacritic mark but a part of the main body of the letter having exclusively graphic functions). The neogrammarian principle, every phoneme should have one single letter (one phoneme: one letter) is obsolete. The Chinese and English scripts (both function excellently) proved that a historically developed aphonetic script can be unusually superior. The main task of the script is to maintain or establish associative connections between concept and sign; in this procedure the sound sequence is a possible intermediator but not the target. The (Arabic) numbers are, e.g., functioning excellently without sound sequential deciphering. Bernhard Shaw's idea that the English orthography is not good because it is phonetically inconsistent, is to be regarded as rather eccentric. The high practicability of the aphonetic script as also stressed by English philologists in recent years (Venezky 1970). Details for the method of the comparative orthography research in Europe are to be found in Décsy 1955. New expansion areas of the Latin alphabet are: Indonesia, Vietnam, Esperanto, and Computer Science. In linguistic transcriptions (except for the SSSR, however, including China and the Islamic nations) Latin characters are generally used. — Gy. Décsy

101 Secession Languages are prehistoric artificial languages. A certain number of members of an original natural language community (Entry 082) secedes from the "mother-tongue group", moves to another place and invents a new language which is not understandable to the people of the previous home area. We know from the investigations of Alessandro Bausani that artificial languages can be created within several weeks if a powerful social necessity gives an impetus to this (Bausani 1970). We can suppose that the protoforms of some of our presentday languages came into being as a result of such a conscious and intentional human language creation in prehistoric times. Phaseologically (stadially), Uralic is, for example, younger than Indo-European. This can be explained by the fact that Uralic is either a "secession language" or it developed "slower" than Indo-European. Japanese is, at least phonetically, a "young language". Perhaps it is an artificial language created for cultic purposes by priests in the first millenium B.C. The concept of "Secession Language" can become a very important principle in Language Origins Research. — Gy. Décsy

102 Semiotics The subject matter of Semiotics—variously defined as "the doctrine of signs" (Locke, Peirce), "the science of signs" (Saussure), or "the theory of signs" (Morris), and often labeled by quasi-synonyms, such as *semiotic, semiology,* or others—is the exchange of any messages whatever and of the systems of signs which underlie them. Semiotics is commonly regarded as a branch of the communication disciplines, but this categorization fails to take into account that, besides the transactional aspects, the study of semiotics is equally concerned with the systematic aspects of the repertory of signs, in brief, with signification.

Messages, which are composed of strings of signs, may be verbal or nonverbal. Linguistics is the formal study of verbal signs, and thus constitutes a branch of semiotics; the other branch, which has no one generally agreed-upon designation, studies nonverbal signs, a vast and only partially organized domain encompassing, beyond human messages, also signs given and given off by all other organic objects, including plants (phytosemiotics), animals (zoosemiotics), organs within the body (endosemiotics), etc. In addition, man-made objects, such as computers or robots, can be treated as message-processing devices.

Semiotics is rooted in Ancient Greek medicine (Hippocrates, and especially Galen), and continues in a clinical context as symptomatology, diagnostics, prognostics, and the like. The philosophical tradition also began in Greece and has continued in the West, without interruption, into contemporary practice. The term was reinjected into the mainstream of philosophical parlance, in 1690, by Locke, from whom Peirce—who is the greatest intellectual force in the field—took the term with his definition, carrying it to unmatched heights. The connection between semiotics and linguistics was suggestively delineated in Saussure's lectures, which have powerfully influenced many of his successors.

Semiotics began to take new shape beginning the early 1960's, both in Europe (East and West) and in the Western Hemisphere. It has, since, successfully penetrated virtually all the arts and humanities, the social and behavioral sciences, several fundamental branches of biology (especially ethology, genetics, and physiology, in brief, those dealing with the "language of life"), and, quite recently, has established important connections with mathematics (Thom) and, lately, with quantum physics and evolutionary cosmology (the "language of nature").

Important future trends include: empirical investigations of how messages are stored, recalled, and, more generally, processed by the brain; studies of diachronic problems (how sign systems evolve in phylogeny and develop in ontogeny); and explorations of semiotic comportment in ill health and old age.

Organizationally, semiotics has appeared energetically in the academic world: the subject is taught in universities all over the globe, with both undergraduate and graduate degrees being awarded, and is penetrating high school teaching. There are, in addition to the International Association for Semiotic Studies (whose organ, *Semiotica,* appearing since 1969, is now in its 42nd volume), a large number of national and local societies. About a dozen journals and book-length serials have been established so far.

— Th. A. Sebeok

103 Senseme A generic term for a sign without channelic specification (tacteme, olfacteme, tasteme, odoreme, pheromeme, audeme, viseme, ectreme). *Sensemics* is the entirety of the data (bits) reaching the brain through the channels. — Gy. Décsy

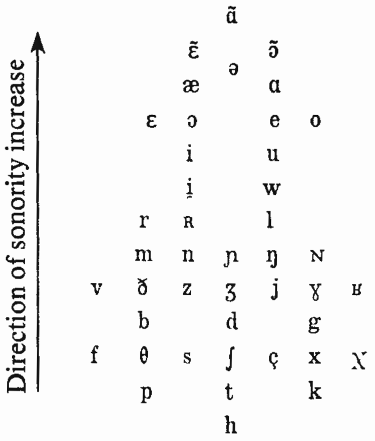
104 Sign Assessment: The Practical-Technical View Charles Sanders Peirce divided the signs (ca. 1906) into ten different classes (quoted here according to Sebeok 1976.9): Qualisign, Iconic Sinsign, Rhematic Indexical Sinsign, Dicent Sinsign, Iconic Legisign, Rhematic Indexical Legisign, Rhematic Symbol (or Symbolic Rheme), Dicent Symbol and Argument. As a result of modern semiotic analyses, Th. A. Sebeok set up seven different sign types: signal, symptom, icon, index, symbol, name and emblem (Sebeok 1976.117-142 and 81). Anttila assumed three kinds of signs: icon, index and symbol (Anttila 1972.13), thus returning to the original inception of Peirce (Sebeok 1976.7). In my opinion, from a practical-technical point of view, it suffices to reckon with only two basic classes of signs: *iconic* and *symbolic*. In the case of the icon, the connection between object (signatum) and signans is factual; for the symbol, however, it is arbitrary. The differentiation is based on the relationship between signatum and signans, which since Plato's physei/thesei (physei/nomoi, i.e. *iconic* vs. *symbolic*) in the Cratylus dialog has been a major concern of language science (details in Décsy 1981.16 and 23). Peirce's, Sebeok's and Anttila's further units (see above) are *sub*classes of symbols or of icons. The icon is a causal sign; the symbol is an arbitrary (non-causal) sign. The signs of the animals are, both in conspecific and interspecific communication, basically arbitrary. Apparently, only symbolic (non-causal) signs can be inherited or nervously and computationally programmed. The icon as a causal sign is intellectually and technically more complicated than the (probably emotionally designed) symbol. See also Entry 036. — Gy. Décsy

105 Sign Assessment: In Terms of the Evolution Theory The five organs of sense came into being in five different phases of evolution and can be chronologically classified according to relative priority as follows: touch is older than taste, taste is older than smell, smell is older than hearing, and hearing is older than sight. Touch is a primary (real) contact between two things or persons. It is the most impressive form of communication, used even by the most primitive organisms (including microorganisms); we can speak about "Urtouch", "Prototouch", see Entry 135. The four other senses are (secondary) substitutes (surrogates) for touch representing different degrees of technical sophistication; they establish coded/virtual contacts (surrogate-touches) between emitter and receiver. Taste is a direct touch of the tongue with food using basically chemical procedures (a blending of saliva and nutritive material) as signals. Smell is likewise a form of chemical information exchange between two communicators (emitter and receiver) who are physically not very far from each other. Although the range of smell is spatially limited, it does not require a direct contact (touch) between the involved persons or things. The range of hearing is, basically, larger than the radius of smell. The most sophisticated sense is sight, in a functional perfection (color sight) to be found only among primates. A classification of the signs according to this evolutionary view differentiates between *tactemes* (tactile signs, direct contacts), *pheromeme* (tastemes and olfactemes or odoremes), *audemes* (what we hear) and *visemes* (what we see). The parallel arrangements of the five sign types in the nervous system seem to display evolutionary-phaseological features: the *tactemes* are received unspecifically (topologically uncentered) in different zones of the nervous system, the *pheromemes* in the subcortical archaic part of the brain (hippocampus); the *audemes* and the *visemes* have their centers in the evolutionally relatively young cortex. For more detailed information see Décsy 1977.26-32. — Gy. Décsy

106 Sociolinguistics According to Peter Brang it is "almost certain" that the term was coined in the Soviet Union. B. A. Larin used the expression *sociologicheskaja lingvistika* in 1928 (*Izvestija Leningradskogo Gosudarstvennogo Pedagogicheskogo Instituta imeni A. I. Gercena za 1928 goda,* vypusk 1, p. 175, see Brang 1973.3). Compounds with *socio-* are not very common in English (the American Heritage Dictionary lists only three: *socioeconomic, sociometry, sociopolitical*). Both Bright and Brang offer the articles by Currie from 1952 for the first occurrence of the word in America (Bright 1961.11, Brang 1973.3; see Currie 1952). In the second half of the 19th century the following words are attested in England: *sociocracy* 1858, *sociocrats* 1887, *sociolatry* 1858, *sociophagous* 1892, *sociostatic* 1895, *sociopolitical* 1884, *socioreligious* 1889 (Oxford English Dictionary). *Language sociology* would probably have been a better term (see German *Sprachsoziologie,* Russian *sociologija jazyka,* references in Brang 1973.3).

Sociolinguistics became popular in the U.S.A. in the '60s and in West Germany in the '70s. See also External Linguistics. — Gy. Décsy

107 Sonority Sets The sonority ("sonorousity", saturation, degree of voicedness) of the vowels and consonants is measurable. Paul Dieth 1950.166 arranged the vowels and consonants according to the sonority degree in the following diagram:



At the bottom is the least sonorous phoneme (the *h*) and at the top the most sonorous vowel (nasal *ã*): the sonority ("sonorousity") increases from the bottom to the top. There are remarkable coincidences between the increasing sonority sets and the evolutionary-phaseological arrangements of the vowels and consonants (see Entry 031). — Gy. Décsy

108 Sound Is Gesture This fact was recognized as early as Plato (Jowett 1892.283) and has been repeatedly pointed out by Wilhelm Wundt (see Wundt 1922.655). A sound is, first of all, a motion of the articulatory organs (lungs, larynx, tongue, lips, etc.); the resonance (vibration carried in the air, water, etc.) is only a secondary form of appearance of the sound. Its primordial motion character connects the sound with the gesture which is in its production process a motion and in its appearance an optical sign (viseme, see Décsy 1981.29). Wundt spoke of *Lautgebärde* (sound gesture). With this an important glottogonic connection between sound (sequence) language and the gesture language (sign language) was proven. The sound (sequence) language must be of "gestural origin". Unfortunately, Wundt's thesis has often been overlooked in language origins research.
— Gy. Décsy

109 Sound Sequence Language or Soundsequential Language and Communication A translation of the German *Laut(sequenz)sprache.* Since the term *language* is often used in the more generic meaning 'communication', the terminological innovation *soundsequential language* etc. is fully justifiable. The communication (exchange of information) is subhuman-universal; the soundsequential language is *only*-human. Only man is able to produce sound sequences in large number, to connect them with concepts (designata) and combine them morphologically and syntactically. Only man has the ability to store sound sequences in large quantity in his brain, to learn, to imitate, to repeat, to recall and to use them for an intensive and versatile communication. Language as *pars pro toto* for communication has long been a confusing terminological convention. George L. Trager and R. W. Wescott used the innovations *microlanguage ~ microlinguistics* for '(human) sound-sequential language' and *macrolanguage ~ macrolinguistics* for 'communication generally' (including prelanguage, paralanguage, metalanguage, see Wescott 1980.19). Later on, Wescott created the terms *allolanguage ~ allolinguistics* for the designation of the entire non-microlingual (i.e. non-human-sound-sequence-rooted) domain of macrolanguage~macrolinguistics (Wescott 1980.19, 172, 197, 208). These terms, like so many meritorious terminological neologisms of American linguistics, did not "catch on". — Gy. Décsy

110 Species is used here as a collective designation for the category of definiteness/indefiniteness which is not only a linguistic but also a very old philosophical problem (see Rand 1979.2-3). Discarding complicated epistemological embeddings, we can state that *species* is a basic organizational principle of grammar and reasoning. It concerns not only the noun (*table* vs. *the* table and *a* table), but probably also the declension (opposition nominative vs. accusative, or, as in Finnish accusative vs. partitive) and the conjugation (verbal aspect: Russian *chitat'* vs. *prochitat'* 'to read'). The so-called objective conjugation of the Uralic languages (Ugric, Mordvin, Samoyed) or the "Ergative" in many idioms of the world (Décsy 1983.1) are basically materializations of the category of definiteness. The high priority of the concrete-definite before the abstract can hardly be questioned today. The definite is concrete, individualized, unique, singular, touchable. The indefinite is abstract, connotative (is a "Klassenbegriff"), pluralistic, uncertain in quantity, appearance and being. The definite concept par excellence is the *name:* Peter, (the) Danube, (the) Rocky Mountains, Goethe, Jesus (the use of the article with these leads to redundancy). Besides proper names, the following can be regarded as *ab ovo* definite concepts: accusative forms of the personal, the possessive and demonstrative pronouns (as objects or object attributes) and a large number of further pronouns and numerals (himself, all, no one, this, etc.). The concepts indicated by these forms have no connotations (they are "keine

Gattungsnamen"). All appellatives (i.e. *Gattungsnamen:* words designating *Klassenbegriffe,* thus having connotations) must have an indexic element if used in concrete (definite) meaning. Generally this indexic element is the article. The article apparently came from the Afroasiatic phylum (Semitic) into the Classical Greek, and from there with Church Greek and Church Latin to Western Europe, becoming one of the characteristic features of SAE (Standard Average European). On the other hand, there are views (and sometimes well founded) that the article could also be the result of an internal development in many languages (as in Germanic). It is often overlooked that in the Bible Latin *ille* ~ *illa* ~ *illud* were used consistently as correspondences to the Greek *ho* ~ *he* ~ *to* (see Vulgata). Apparently, the French (*le* ~ *la*) and Italian (*il* ~ *la*) articles originated in these forms; the Vulgar Latin article may have supported the development of the Germanic article. The species is such a fundamental category that it is certainly present in all languages of the world. Russian *stol* 'table' is ambiguous because it can also mean (without the addition of a formal element) '*the* table'. The existence of the article (or similar formal elements like objective conjugation, partitive vs. accusative, etc.) is more an exception than a rule in the languages of the world; it is, in any case, only a surface phenomenon. The article and its allies (objective conjugation, partitive vs. accusative, etc.) re-concretize the common name (appellative), thus making it a "proper name" again. The accusative is, in my opinion, not a real case, but only a reconcretizer, and its ending (contrasting with the nominative) is nothing more than a *postposed* article. In Latin expressions like *in domum* 'into the house' (accusative of *domus* 'house') the definiteness is more "striking" than the direction (motion, cf. *in domo* 'in the house'). The most common function of the accusative is the *definite direct object;* languages with articles tend to loose the accusative (like English, French, German), because the joint use of article and accusative leads to redundancy. Cross-linguistic views on the article are to be found in Krámský 1972; see also Décsy 1973.216 and Entry 086. — Gy. Décsy

111 Square (Dichotomic) Vowel Systems This is the system I assume for Pre-Proto-Uralic. It is a four-member counterpart to the Triadic System (Entry 125).

Square		Triadic	
i	u	i	u
a	a	a	

The *o* and *o* must be secondary both in Uralic and Indo-European. The status of *i* and *u* is mostly uncontroversial in protolinguistic reconstructions in both languages. Problems arise in connection with the question whether the original (Uralic or Indo-European) protoform contained an *a/o* (or *ä/e* in Proto-Uralic). In my counting, there are at least 15 such languages in Ruhlen's list (Ruhlen 1976.153-299) for which a Square System can be supposed. However, the problem is the phonetic interpretation of the dichotomic oppositions which can be illustrated as follows (where *ä* is an open *e* = ε):

i	u		e	o		i	u
		or			or		
ä	a		ä	a		e	o

Apparently, the field researcher in this case classified at random (as Ruhlen probably did). One of the three arrangements is possible in the following languages: 1. Alawa (Australian, Ruhlen 1976.155[1]); 2. Andoa (Andean-Equatorial in Peru, 158); 3. Arapaho (Macro-Algonquian, Wyoming, 160); 4. Cashinawa (Ge-Pan, Ge-Pano-Carib, Peru, 175); 5. Kalinga (Austro-Tai, 215); 6. Kerek (Paleosiberian, 220); 7. Kitabal (Australian, 222); 8. Kitsai (Macro-Siouan, Oklahoma, 223); 9. Klamath (Penutian, Oregon, 223); 10. Kolami (Dravidian, 224); 11. Kurdish (Iranian, 228); 12. Lezghian (Caucasian, 231); 13. Sarsi (Na-Dene, Canada, 264); 14. Telegu (Dravidian, 276); 15. Wapishana (Andean-Equatorial, Guyana, 289). I leave open the question how to interpret these apparently dichotomic systems and whether they represent archaic or innovative structures. See also Turkic Vowel System (Entry 126). Apparently, also Akkadian (spoken roughly from 2400 B.C. to 100 A.D. in the Near East) had a square (dichotomic) vowel system with an open *ä* (Reiner 1966.35 and 41).

— Gy. Décsy

112 Stadiality and Language Development Tempo "Stadial" as an adjective (*stadium* 'measure of length') is attested in English in 1398 (*OED,* today it is not used in this language). Here I regard it as an adjective to *stage* 'phase in process or development'. The noun *stadiality* is a neologistic correspondence to the Russian *stadialnost'* which is regarded as a notorious term of the glottogenesis of N. J. Marr (1864-1934). According to Marr the three typological groups of languages (Entry 127) represent three different "stages" (in Russian *stadiya* 'stage, phase') of the social consciousness and ecological (economic) development of mankind: the amorph-analytic (pre-grammatical) language type reflects the totemistic; the agglutinating, the cosmic-mythic; and the inflecting echoes the technological-reasoning stage (see Szemerényi 1982.4). Although past experience has refuted the thesis that the ecological (economic) basis influences the language *structure,* the three terms are useful indicators for the qualification of developmental stages. However, some languages develop faster than others. The "Language Development Tempo" (German *Entwicklungstempo*) seems by no means to depend on the social-ecological-economic basis; it is governed by the intensity of the communication. Peoples with intensive foreign contacts change the structure of their language faster than isolated language communities. Classic Greek (Near Eastern influence), French, German, English, and of the small languages in Europe, Lapp and Cheremis can be regarded as "contact-intensive". All these lánguages are very "untypical" (alienated) representatives of the higher genetic unit (Indo-European, Latin, Germanic, Finno-Ugric) from which they developed: they are "progressive" idioms. Icelandic, Finnish, Lithuanian or Russian are, on the other hand, "archaic languages". Their contacts with foreign peoples were limited and they display a slow "Development Tempo". Some languages develop in a very short time, often unusually quickly; e.g. English in the last three centuries, or Lapp which lost the Vowel Harmony and introduced the "Umlaut" with a trend toward Germanic-type vowel reduction in unstressed syllables during a time span of several hundred years. The inflecting Indo-European is either older than the agglutinating Uralic, or it developed faster during the same time span than Uralic. — Gy. Décsy

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[1] The numbers in subsequent units refer to the page numbers of Ruhlen 1976.

113 Standard Average Superlects The concept "Standard Average European" (short: SAE) was introduced into linguistics by Benjamin Whorf in 1939 (see Whorf 1956.138, further Décsy 1973.29). I defined SAE as the entirety of the common features of the main European languages (predominantly of French, Italian, Spanish, German, English, and of about 15 additional smaller idioms in Western and Central Europe) which were "synchronized" by the Latin-Greek grammatical and cultural tradition. I also regard Russian as a member of the SAE-group (see Décsy 1973.29-30 and 40-43). Accordingly, we can also speak about "Standard Average Arabic" (SAA) between Central Asia, Indonesia and Morocco (including Persia, Iran, Bangla Desh, Pakistan, etc.). The territory of "Standard Average Han" (SACh, Chinese or Han) can be regarded as the *whole* area in which the Chinese script is (or was) used, resulting in a considerable culturally impressive synchronization of the peoples and various languages there. All three World Superlects cover linguistically heterogenous areas; in principle, they brought together, at a high cultural level, genetically segregated (even if originally related) or unrelated languages. Standard Average European is the achievement of Christianity, Standard Average Arabic of Islam, and Standard Average Chinese of (a part of) Buddhism. The powerful giant languages Sanskrit (India and adjacent areas) and Japanese cannot be regarded as Superlects because their territorial range was limited to relatively small regions (India, Japan and close neighbors).

— Gy. Décsy

114 Storage Value or Storage Volume Translated from German *Speicherwert* designating the entirety of original written documents with high esthetic or scientific worth. It consists of *Fiction* and *Non-Fiction.* Fiction comprises *Folklore* and *Artlore* (Belletristics). The telescoping compound *Schoolore* (from *school* and *lore*) could be applied as an opposite to fiction and as a handy member of the set Folklore and Artlore. The Storage Value of a language can be quantified on the basis of estimates. If the Storage Value of German and French is 100, English would obtain 250, Russian 80, Italian 75, Spanish 70, Polish 25, etc. These estimates are subjective; future research should establish the principle of more exact quantifying. The Storage Value of English has increased enormously over the last 200 years, while that of the other top languages presently stagnates. — Gy. Décsy

115 Stratificational Grammar This ongoingly developing field of research headed by its inventor, Sydney M. Lamb (formerly from Berkeley, Cal., and Yale, now at Rice University in Houston, Texas), offers a *formal model* of both linguistic "competence" and "performance" under actual conditions of *encoding* and *decoding.* Meaning is said to be "up" and phonological realization is said to be "down"; practitioners admit, however, that these directions are merely arbitrary for the sake of convenience. The model has a long and complicated history, but can be characterized in essence as an amalgamation of the *glossematics* of Louis Hjelmslev, American Structuralism in its heyday, and British Systemic-Functionalism as initiated by Malinowski-Firth and disseminated overseas (after major revisions) by its internationally most active exponent, M. A. K. Halliday (currently in Sydney, Australia). The *model of description* is simultaneously *visual* and *logical;* the actual form used is that of a *relational network.* When two features "coincide" (e.g. labiality and nasality in an /m/), *strat* uses an *and*-node (known as *coincidence concatenation* in set theory); when two features "alternate" (e.g. *good* alternates with *bet*-before the comparative *-er*) *strat* uses an "or" node, (known as a *disjunction* in set theory). Both *and*s and *or*s can be *ordered* and *unordered* allowing stratificationalists to achieve coincidences where they are most usefully posited (e.g. semantics and phonology), and sequences (e.g. morphology and surface syntax). The model is very powerful and can be easily programmed for computer simulation (S. M. Lamb, P. A. Reich). The theory is typologically as well as essentially compatible with other tiered theories (e.g. tagmemics *q.v.* and Systemic Functional Grammar *q.v.*). In contrast with the various brands of TGG, the *Stratification Grammar* has no use for "rules" and "transformations"; the former are handled via *realizations* and the latter via *stratal discrepancies,* in strict observance of the separation of synchrony and diachrony. Thus, for example, whereas in a TGG derivation the "underlying form" of the sound /č/ of English *presidential* is said to "derive" from an underlying /t/ (as in the spelling of *president,* allowing for an intermediate stage where the sound is

/s/ as in *presidency*), STRAT would regard the /t/ of *president* not as an "underlying form" (which, of course, is also a spelling-based *historical reconstruction*) but an element of a "higher stratum" called a *morphon* (i.e. the morphophoneme-sized constituent of a *morpheme*) which has *different realizations* in different words quite independently from one another. STRAT claims that TGG's position would force the speaker first to think of *president,* then of *presidency,* and only lastly of *presidential,* because pseudo-historically and derivationally, this is the order in which the sounds unfold through the use of "rules". In STRAT *presidential* and *presidency* can be realized *immediately* without reference to *president.* Mutatis mutandis, the same logic is applied to syntax as well, where the passive, for instance, is not seen as a "transformation" of the active, but rather a different mode of realizing *not* and "underlying semantic representation" but a *sememic network shared* by the active and the passive sentence in question. Stratificational Grammar is particularly well suited for the description of *lexis* (including *idioms*) and inflecting and agglutinating languages where observable "cases" (e.g. the accusative in Latin) may be the neutralized expression of divergent meanings (direct object, destination, exclamation, specification, etc.) Lamb's 1966 *Outline of Stratificational Grammar* (Georgetown University Press), Lockwood's *Introduction to Stratificational Linguistics* (Harcourt Brace, 1972), and Makkai and Lockwood's *Readings in Stratificational Linguistics* (Alabama University Press, 1973) as well as the various *Lacus Forums* (see *Lacus, Inc.*) offer further useful readings and references. — A. Makkai

116 Summer Institute of Linguistics, Inc. (short: SIL) Founded by Dr. William Cameron Townsend in 1935 as a small-scale summer enterprise (hence its name), the SIL became incorporated in 1942 as a year-round operation, and has since grown to the largest international organization doing actual field linguistics throughout the world on unknown languages. In 1942 Kenneth L. Pike became the SIL's first President; he has served in that capacity until his retirement from the University of Michigan in 1979. During Pike's 37-year presidency SIL has created phonemic alphabets, grammars and dictionaries for more than 900 previously unknown languages. The SIL is supported exclusively from donations by Protestant church groups throughout the USA; volunteers are usually young men and women or couples in their early twenties who then enter an intensive period of training. This takes place regularly in the Summer at the Norman Campus of the University of Oklahoma; courses offered include phonetics, phonemics, syntax, grammatical analysis on elementary, intermediate and advanced levels; credits are transferrable to other institutions. The SIL's main international headquarters is in Dallas, Texas (7500 W. Camp Wisdom Road, Dallas, Texas 75211) with additional headquarters in Huntington Beach, California; Washington, D.C.; etc. The SIL is closely affiliated with the Wyclife Bible Translators, Inc., also founded by Dr. Townsend. The SIL has regional offices *qua* linguistics institute throughout the world where it operates, and "prayer centers" *qua* affiliate of the Wyclife Bible Translators. Several major American linguists have emerged through the SIL or SIL-affiliated work; with K. L. Pike as the SIL's *doyen,* scholars such as Robert E. Longacre, Sarah Gudschinsky, Ruth Brend, Benjamin Elson, Velma Pickett, Eugene Nida, Joseph Grimes—to mention only a few—have made major contributions to descriptive linguistics. Although the SIL, as a group of scholars, shows unique tolerance towards any sensible linguistic philosophy, including TGG, Stratificational Grammar, and Systemic Functionalism, the main tenor of SIL-related linguistics work has been in the ongoingly developing mode of *tagmemics* (q.v.), the invention of Kenneth Lee Pike. Tagmemics sees language trimodally as *field, wave, and particle* and postulates a *simultaneity* or *coincidence* of these three modes in any given utterance observed under natural conditions defined in a *behavioral context.* The major synthesis of tagmemics is available in Pike's *Language in Relation to a Unified Theory of the Structure of Human Behavior* (Mouton, 1967), but several independent scholars (e.g. Longacre) have initiated different approaches within the model. Pike's two main helpers are his wife, Evelyn G. Pike, and his sister, Eunice; the former co-authored *Grammatical Analysis* with KLP; the latter wrote KLP's biography, *Ken Pike, Scholar and Christian.* The "developing edges" of Tagmemics are discourse-analysis and text-linguistics. Due to political rivalry from atheistic and left-wing pressure groups, the SIL has sustained some unfair as well as some well founded criticism regarding its role as a "transformer" of preliterate Indians into citizens of the 20th century, and had to give up its headquarters in certain countries (Nepal, Mexico). The cumulative benefit of the SIL's work, however, reaped citations from Latin American Presidents (Peru, Bolivia, etc.) and the Magsaysay award from President Marcos of the Philippines. The international linguistics community sees Pike and the SIL as the only possible linguists as viable candidates for a Nobel Peace Prize for their work in bilingualism and literacy and have, therefore, through the proper channels, nominated K. L. Pike and the SIL for the Nobel Peace Prize of 1982.

— A. Makkai

117 Susceptibility Sets The concept was introduced by the Polish phonetician L. Zabrocki and redefined by his student J. Bańczerowski. They made an attempt at arranging the phonemes of different languages according to the energy quotient needed for the articulation of particular sounds. Their set is, to a certain degree, a reverse of the so-called "sonorosity sets" (Entry 107). According to Zabrocki's thesis, the more energy needed for the production of a sound, the higher the probability of a sound change. The energy extensive sounds have a higher sound change susceptibility than the energy intensive sounds. Bańczerowski suggested the following universal sound change susceptibility set based on observation of a large number of languages:

d b g t p k ʒ c ð ß γ z f x s ŋ m n l r i u e o a

decreasing in susceptibility from left to right. The position of the members of the set can be variable according to languages, however, the arrangement has a high degree of universal validity (for details see Bańczerowski 1969.51). Zabrocki's method is similar to distinctive feature anslysis in America; however, the Polish phoneticians based their grouping exclusively on the energy utilization quotient during articulation and thus stressed a phaseologically more primary aspect of sound production in the ramification of the tense/lax (tenuis/lenis, Verstärkung/Lenierung) category, which is actually not an equipollent, but a gradual opposition.
— Gy. Décsy

118 Synchronic Linguistics The opposition *linguistique synchronic/ linguistique diachronique* is a creation of Ferdinand de Saussure (see Szemerényi 1971.30-31). Since the publication of his *Cours* (1916, German translation 1931) this methodological antagonism became a *dogma* of modern language science, approved and maintained also by the influential work of Henry Allan Gleason, Jr. in America (first published in 1955). De Saussure's strong "synchronicism" was certainly only an overreaction to the historical/diachronical excessiveness of the Neogrammarians. Synchronic linguistique is basically the same as descriptive linguistique (Anttila 1972.20). Language in time sequence or in oral performance is similar to the *liquid* state: in this aggregational form it is hardly observable or perceivable. In order to "catch" it we have to change its physical condition and transform it from fluid to a *solid* stuff. That is what script does. The cost of transformation is loss of the time aspect of language, and with it the perdition of the unique vividity of the oral utterance. The Neogrammarian belief that spoken language is the real language was deceitful. This was first recognized and methodically somewhat overstressed (probably unnecessarily) by de Saussure. Experience shows that *every* "linguistique" is descriptive, even the historical/diachronic/ comparative one. Using the latter methods we *describe* the languages in time sequence, beyond descriptive registration. The diachronic "linguistique" is nothing else but a supsumption of synchronic descriptions: it puts in a set according to the (supposed) time sequence synchronic facts of different development stages (phases, stadia, see Entry 112), cf. Uralic **pälä* 'half', Early Proto Hungarian **fälä*, Late Proto Hungarian *fäl*, Old Hungarian *fɛ̄l*, Medieval and Modern Hungarian *fél*. — Gy. Décsy

119 Systemic-Functional Grammar Developed by Michael A. K. Halliday as a more diversified continuation of his earlier "Scale-and-Category Theory", Systemic-Functional Grammar (SFG) is a neo-Firthian brand of both descriptive linguistics (in terms of grammar) and a much broader socio-linguistic theory, unique in delicacy and depth. Typologically as well as essentially compatible with *tagmemics* (*q.v.*) and *stratificational grammar* (*q.v.*), SFG divides language into three components: (s) *ideational,* (b) *interpersonal,* and (c) *textual* (or contextual). As such, it is a *tiered theory* (tagmemics has field, wave, and particle, STRAT has semantics-semology; lexology-morphology, and morphophonology-phonetics). The *ideational* component is responsible for semantics and lexis; the *interpersonal* component (to simplify) is responsible for conjugational endings, person, mode, etc., i.e., a significant part of the grammar of a language; with the *textual* component being responsible for much of traditional syntax, but here replete with *cohesion.* MAKH is the inventor of "Relational Networks" which have been borrowed and put to different use in STRAT. Halliday's networks "lie sideways" and offer a two-way choice after each *entry condition* that the search passes, e.g., *entry:* a, or b. if a, then a_1 or a_2; if b, then b_1 or b_2. The system is both visual and logical (as in STRAT) and allows for simplifications in various parts of a description. The informal journal *Network* edited by Robin Fawcett of Cardiff, Wales, brings the newest developments to the attention of colleagues; an annual Systemic Workshop has been functioning, mostly in Britain, and in Toronto, Ont. for the first time in the summer of 1982. SFG pays close attention to how language functions in society; indeed one of MAKH's recent books (Edward Arnold 1978, London) is entitled *Language as Social Semiotic.* The seminal book *Learning How to Mean* (London, Edward Arnold 1974) describes the language acquisition of a young child from only a few months of age until the use of the "adult language" he hears. Halliday pays close attention to language as a social code, his seminal article on "Antilanguages" (Chapter 9 in the 1978 book mentioned) is a case in point. The analysis of texts, both literary-expository, scientific and poetic, also plays a major role in SFG. Halliday, in co-authorship with Ruqaiya Hasan, published *Cohesion in English* in 1976 (London: Longman); an earlier collection (Edward Arnold, 1973) entitled *Explorations in the Functions of Language* contains various earlier articles amounting to the consecutive chapters of a total theory. — A. Makkai

120 Tagmemics This brand of descriptive linguistics is, simultaneously, a philosophy and a world-view. Its main tenet is that phenomena come in individual shapes and forms somewhat like human fingerprints or leaves of the same tree, which are never *identical;* yet they share so many *Basic Similarities* that it would be wasteful not to co-classify them. Accordingly, the plane of individual manifestations is the *-etic* level (borrowed from phon*etics*), contrasted with the *-emic* level (borrowed from phon*emics*). The main initiator of the theory is K. L. Pike (see Summer Institute of Linguistics, Entry 116), but several dozen major American and foreign scholars have also made lasting contributions to this area and mode of research. Tagmemics sees language as Field, Wave and Particle: likening linguistics to Physics. (At the 1927 Copenhagen Congress of Physicists it was finally agreed by N. Bohr, Max Planck, etc. that light was *both* wave *and* particle, not just the one or the other.) Words in isolation are particles; yet their constituent sounds are in a field (i.e., the larger unit of the word); the word, when found in context, is in a discourse-field. Sounds overlap in speech, i.e., they come in waves; and so do semantic features which cannot always be ferreted out in a 1 : 1 fashion; furthermore, *time* goes on as people speak (wave view on the small scale) and languages change over the centuries (wave view on the large scale). Tagmemics devotes its attention to Positive Data (as do STRAT and SFG *q.v.*) since tagmemicists are basically field-linguists creating phonemically based alphabets for yet unwritten languages and grammars with libraries of texts ranging from the local fairy tale to modern UNESCO penicilin use instructions and nonsectarian translations of the Bible. In *tagmemics* one doesn't put an * in front of an utterance that does not occur, seeking explanations *why* the form failed to be recorded; only actual forms are shown. This gives *tagmemics* a heavily synchronic orientation although several tagmemicists have, independently, also worked on internal reconstruction and comparing different languages (S. Gudschinsky, R. E. Longacre). The chief value of tagmemics is its formidable battery of genuine data from exotic languages; under Pike's presidency of the SIL (Entry 116) alone (1942-1979) 5,103 languages were catalogued as to their status in the *Ethnolog* (Barbara Grimes, Ed., 1978, Dallas, SIL). Literacy and Bilingual Education are chief concerns of tagmemicists on the practical level; theoretically, they have been moving more and more into cohesion, text-analysis and discourse (Evelyn G. Pike, Robert E. Longacre *et al.*). — A. Makkai

121 Theoretical Linguistics emphasizes the deductive possibilities of language science giving priority to the model before data in the cycle of scientific epistemology (see figure in Hailman 1977.8). The aversion against this view springs from the experience that linguistics is basically an empirical science. First we have to learn and describe the 2,800 or so languages of the world with all their cardemic features (see Entry 007), then we have to classify them genetically, structurally, areally, etc., and only after that can we set up a theoretical model which would help to make convincing deductions, predictions and observations. Deductions in linguistics are ethically not justifiable as long as all possibilities of empiricism (by description, induction, etc.) have not been exhausted (e.g. in the ramification of a Global Linguistics, Entry 035). However, in the view of deductionists, the unknown or unregistered languages of the world (see Entry 073) would (or will, if discovered and described) not contribute any new items to the data system already known from the solidly described languages of the earth. Theoretical and empirical linguistics *complement* each other and are actually more companions than adversaries. The challenging paraphrase "Theoretical Linguistics is only a small and not very important part of Applied Linguistics", based on a remark of Richard Courant ("Pure Mathematics is only a small and not very important part of Applied Mathematics"), certainly does not reflect the conviction of its creator John Lotz who had a high opinion of theoretical linguistics (Alatis 1968). In Germany, the journal *Theoretical Linguistics* (founded in 1974, edited by H. Schnelle) is dedicated to deductive language research. It is a deficiency that theoretical models in linguistics have always been strongly Indo-European based. Indo-European is probably the most idiosyncratic among the language phyla of the world; therefore, it is not very suitable as metalanguage (etalon) for global (universal) linguistic comparisons. Another regrettable imbalance is that many linguistic models are set up only on the basis of a single (or, at best, of several) Western languages. Deductions and (the usual over-) generalizations are in such cases not standing the (empirical) test. In the present state of the art, empirical data collection would better promote linguistics than new theoretical models (see also Entry 061). This means, in a certain sense, "back to basics" in language science. — Gy. Décsy

122 Time Depth (German *Zeittiefe*) is used in connection with the length of time linguistic forms are known or conjectured to have existed. Actual attestation for a language history is relatively easy to determine. Estimates of the time a particular proto-language existed are largely guesswork (hence the attractiveness of glottochronology as something tangible). The problem of giving an approximate date for a proto-language is complicated by the fact that elements reconstructed on the basis of existing language data may differ in the time that these elements were in use in prehistory.
— C. T. Hodge

123 Toniconism (Tone-Iconism) Wescott used the term *Tonal Icons* in 1973 (Wescott 1980.242); I coined *Tonikonismus* and *Tonikonuniversalien* in German (*UAJb* 52.182, see also Décsy 1981.18). As with icons generally, there is a causal connection between meaning and sign for the Tonicons as well. Jakobson & Waugh 1979.178, etc., and M. R. Haas 1978.339, etc., still used *Sound Symbolism* in the meaning 'tonicon' (see Décsy 1981.16, diagram). As with the symbol, the connection between sign and meaning is arbitrary. *Tonicon* is, therefore, a more precise designation: namely, it indicates that a causal and direct connection between a sound (sound sequence) and an object is assumed. Tonicon, as a term, replaces the earlier *descriptive,* *expressive, affective, emphatic,* etc. words. Tonicons require reasoning; therefore, they cannot be very ancient. — Gy. Décsy

124 Trends and Megatrends in Languages and Language Science The term *trend* implies self-justification: the indication of prediction is conditioned. It is apparently no accident that so many theoretical works of linguistics in the '60s/'70s restricted themselves using *trend* (German *Richtung*) in their titles (*CT*, Ivić 1965, Szemerényi 1971 and 1982). The question remains open whether this modesty was or is justified. *Mega*trend (see Naisbitt 1982) is an additional limitation of the claim to take the risk of infallibility. The most important (and probably "durable") revelations of the last two decades of *language science* (term used also by Bloomfield, reinnovated by Sebeok in the 70's, certainly according to German *Sprachwissenschaft*) are: 1. Language (communication) is not the same as sound sequence language (Entry 109). 2. Sound sequence language is an achievement of Cro-Magnon man and is no older than about 35,000 years. It is apparently only a rather inadequate and transitory-temporary form of human communication. Its importance has been strongly overestimated in the social life of the last two to three millenia and in language science of the last century. The elimination of its traditional world structure is in progress and will rapidly advance in global proportions. 3. A previous monolingualization of the earth is unavoidable. A worldwide acceptance of English (which presently displays neither technical nor psychological obstacles) will end the "linguistique" based communicatory and nationalistic segregation in the world. 4. The (relative) unity of World English (Worlish, Entry 138) will be sustained, first of all, by the traditional *script* (Entries 100 and 139). Any *considerable* change of the traditional English orthography (especially its "phonetization" as envisaged by B. Shaw) would destroy the unity of world communication. 5. The largest part of World Communication will be carried out in oral-soundsequential form in English (telephone, tape, audio-visual systems). 6. The high-frequency vocabulary (ca. 4,000 words and/or concepts) will be standardized on the basis of the Western pronunciation of American English (see Entry 128). 7. The English as a Second Language Industry will experience an unusual boom in the 90's. After that it will decline and the Vernacular Teaching shall receive increased attention. We reckon with this throwback in the time when English will be emotionally accepted by most students everywhere on the earth as their preferred (first) language (cf. in this context the French purism of Pompidou and Mitterand). 8. The World Unity through (an American based) English will become a global political factor probably as early as the 90's. It will supersede the ideological differences between East and West. 9. Non-soundsequential (iconic, ectric/ectremic) communication techniques will prevail in some areas of human life. 10. The so-called "oral genres" of entertainment (jokes, anecdotes, cabaret programs) will experience a renaissance, and "icon-based comics" will develop to a special form of international communication. 11. Depending on the efficiency of education (Entries 026 and 139) the reading ability of the population may remain at an adequate level; however, the writing (spelling) skills will generally decline, even among educated people.

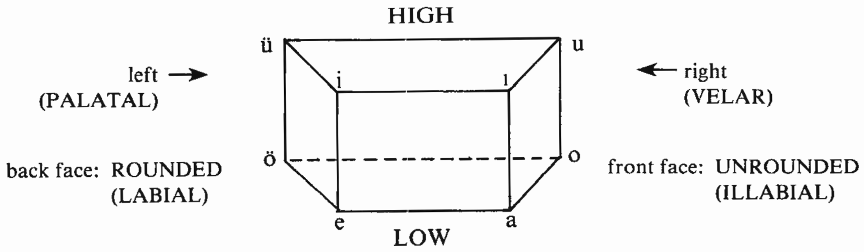
The theoretical possibilities of language science (linguistics) can be regarded today as exhausted. The interest of professional linguists in language theory will strongly decline. Research on the history of languages and language science (Historiographia Linguistica) will be intensified; a large number of the discoveries of the 60's and 70's will turn out to be (previously not generally known) findings of earlier times (see the "deep structure concept" which is ascribed now to Apollonius Dyscolus, Householder 1981). A "Des-Indo-Europeanisation" of linguistic thought is to be expected. Research will center on the less known langauges of remote areas (Khoisan, Australian, Sino-Tibetan, Altaic, South Amerindian). Language science will become data-oriented and experimental-inductive. Theoretical models of "study-desk-linguists" will be rejected by data-oriented research. In the framework of the latter, Language Origins Research, Global Linguistics, Research on Universals (Unemics), Semiotics and Applied Linguistics will offer the most convincing results.

— Gy. Décsy

125 Triadic (Two Level Dichotomic) Vowel System The set *i, u, a* is carried by 6% of the languages of the world (according to Ruhlen 1977.185), the highest phylum percentage being displayed by Eskimo-Aleut (80%) and Australian (54%). Even today this is the inherited system, among others, of Classical Arabic, Indic and Persian, i.e. the speaker number percentage of the Triad is probably higher than the language number percentage. If we can prove that the vowels *u* and *i* are only vocalic realizations of the consonants *w* and *j*, the languages with the triadic system would turn out to be univocalic, and their *a* could be interpreted as (colorless) *ə*. In pre-Brugmannic times such a Triadic vowel systems was assumed for Proto-Indo-European too. The question today is whether the pre-Brugmannic view was not more convincing than the post-Brugmannic, at least in terms of evolution theory. Allan Bomhard precisely postulated this "Triadic Vowel System" for Pre-Indo-European which seems to be a new term for Indo-Hittite (Entry 040) and Early-Proto-Indo-European (see Bomhard 1981.454 and 1976.200). In any case, the "Triadic Vowel System" is much more an "everyday phenomenon" in the languages of the world than structuralists thought several decades ago (Trubeckoj, Jakobson). Therefore, today it seems to be a more realistic assumption for (Pre-) Proto-Indo-European than it was several years ago. However, we must note that the "very archaic" phyla Caucasian, Khoisan, as well as most Amerindian languages do not carry the Triadic System. If we disregard Eskimo-Aleut, out of 213 Amerindian languages only 12 (5.6%) display the

Triadic Vowel System (according to Ruhlen 1977.158). An archaic feature of the Triadic System is that it is dichotomic (like the Square System, see Entry 111). — Gy. Décsy

126 Turkish Vowel System Model; Cube Diagrams The special fascination of the (Turkey-) Turkish vowel system is: 1. It has eight vowels: *i, e, ü, ö, ı, a, u, o*. 2. These eight vowels stand in a dichotomic opposition not only according to the horizontal tongue position and labiality/illabiality (rounding, which is common in Turkic languages), but also according to the vertical tongue position which is rather unusual (see Entry 111 and 125). John Lotz dealt with this unique phenomenon in several methodically important articles (Lotz 1942, 1962 and 1975). Lotz arranged the eight vowels at the eight corners of a cube:



The six faces of the cube represent different articulatory procedures (as indicated). Troubetzkoy made an early attempt (1929and 1938, in the *Grunzüge*) at a two-dimensional (dichotomic) arrangement of the Turkish vowel system (Lotz 1975.142). As Lotz admits, physical measurements do not support the binaric setting because there is a considerable difference between *o/ö* and *a/e* concerning the frequency of first formant (Lotz 1975.142). The pair *o/ö* is somewhat more open (lower) than *u/ü* and considerably more closed (higher) than *a/e*. Cube diagrams in connection with phoneme grouping were used by other scholars besides Lotz (Forchhammer 1928.36-37, Décsy 1960.167 and 1977.56). Cube diagrams have high mnemonic value; however, from a physical-articulatory point of view, they are often arbitrary and/or simplificatory. — Gy. Décsy

127 Typology One of the most confusing terms of linguistics, often used without adequate clarifications in many different meanings. According to the most common view, language typology is the non-genetic morphological classification of languages. On the basis of the pioneering works of Fr. Schlegel (1808), W. v. Humboldt (1812) and H. Steinthal (1860), but especially after the publications of F. N. Finck's writings, four ideal-virtual language types (etalons) were postulated: isolating (like Chinese), incorporating (Eskimo), agglutinating (Uralic and Altaic) and inflecting

(Indo-European). There are no factual languages which would materialize (incarnate) any of these "pure" types in practice. However, one of the four types is usually predominant in any given language; the task of the language typologist is to find out the quantitative relationship between the predominant and the other (secondary) typical feature groups in the languages under investigation (Skalička 1968.4). Later on, the incorporating, the agglutinating and the inflecting types were merged and called *synthetic* as opposed to the isolating which received the name *analytic*. This kind of typology is simple, but not very insightful. The so-called "Structural Typology" (*strukturnaja tipologija*) is a Russian innovation and represents a pointed return to non-genetic (morphological) comparison /classification of languages (Uspenskij 1962, 1965 and 1968). Thus, the Russian concept is a modernized version of the Soviet Marr/Meshchaninov-Linguistics and the Macroareal-Comparison of the "Eurasists" developed by Trubeckoj and the young Roman Jakobson in exile in the West. All these Russian works aimed at the justification of a peaceful coexistence of a large number of genetically non-related languages in East Eurasia under the leadership of the Russians (see Entry 029, 030). With this idea they laid the foundation for Areal Linguistics (see Entry 003) and Language Alliance Research (Sprachbundforschung). In many cases, any type of "Contact Linguistics" (see Entry 003) was called Typology, and soon the pleonasm Areal Typology (patterned after Structural Typology) appeared in publications (first used in 1970 by Hajdu 1975.94, thereafter by Sherzer 1973.749 and by Haarmann 1976). Actually, the "Interlinguistics" (pioneering work: Wandruszka 1969) and "Interference Research" (another name for Contact Linguistics) are affiliations of the classical non-genetic/morphological typology. B. Comrie connected "Linguistic Typology" with Language Universals Research (Comrie 1981). Because of the conceptual uncertainty it would be better to discard "Typology" as a linguistic term; it could be replaced by "language characterology" or "language identification" in the ramification of "Cardemics" (see Entry 007). A useful bibliography of traditional typology research was offered by M. K. Horne's *Language Typology* (Washington, D.C., Georgetown University Press, no year of publication; probably 1970). — Gy. Décsy

128 UK-English and US-English Code-words (*U*nited *K*ingdom and *U*nited *S*tates) replacing BE (British-English) and AE (American English) in the computer business. As *U* has no distinctive power in the opposition, *K*-English (*K*ingdom-English) and *S*-English (*S*tates-English) would be more suitable. From a global point of view, the two "Englishes" must be regarded as variations of the same language. B. Shaw's sarcastic allusion, the United States and Great Britain would be two countries separated by the same language, can claim no credibility. The differences in spelling and vocabulary are minimal, in the pronunciation considerable; however, the diversities in the language use of educated people never endanger the mutual intelligibility. Actually, the disparity between UK and US English is less disturbing than the differences between North German (Bühnendeutsch) and the Austrian version of German (Österreichischer Verkehrsdialekt) which was the quasi-official language of the Austrian-Hungarian Empire until 1920. UK-English is used, in principle, everywhere in the countries of the British Commonwealth. US-English is preferred in the areas with strong American influence (among them in Japan, China, partly in the non-British areas of the Common Market). As the differences in spelling are minimal, it would be meaningless to try to eliminate them and to establish a unified "Worlish" in orthography (Entry 138). The US-spelling is somewhat simpler than the UK-spelling, therefore it is often preferred in many countries where English is taught as a Second Language. However, the UK-spelling seems to be more prestigious. A home-grown American linguist who was generally consistent in applying American spelling in his publications, once used in his manuscript UK *programme* (instead of US *program*). He remarked to the objection of the American copy editor: "it was meant to add a touch of elegant international flavor and high-class artistry. You may edit as you prefer" (document in my possession). The differences in pronunciation may cause more disarray. It is now customary to provide the oral utterances of UK-speakers on TV-airings in the U.S.A. with written subtitles. I first observed such techniques in connection with a British teleplay aired by a TV station in New Mexico in March 1976 (data in my archive). The pronunciation of UK is based on the Southern England native dialects with some regulations which became generally accepted in the public schools of Great Britain; it is called RP (Received Pronunciation, details in Jones 1958.XC-XVI). This pronunciation, brought to New England in the 18th-19th century, influenced the prospective US-English much more than the presentday advocates of an American linguistic independence admit. The main regional divisions of the US pronunciation (according to *PDAE*) are: *East* (New England, New York City and environs), *South* (parts of Maryland, the area on or South of the north state limit of Virginia, Tennessee, Alabama, Mississippi, and parts of Kentucky and Oklahoma), and *North* or *West* (the rest of the U.S.A.). The East is "closest" to the RP, the South is in its kernel area (Louisiana) French influenced, being rather idiosyncratic (especially in intonation). So the "West" is to be regarded (especially in the heartland of the Midwest with Chicago as "center") as the *cradle* of real Americanness in the pronunciation (views outlined partly by Bloomfield). Within the three regional divisions of the U.S.A. the pronunciation of educated people is surprisingly uniform. At lower levels there are, of course, many local colorings, and it is quite customary to speak about "Kentucky-English", "South-Dakota-English", etc. (or even Southern Indiana or Hoosier pronunciation). Similar subdivisions of pronunciation exist in England as well, and in the other Commonwealth countries; often, there is no mutual intelligibility between such territorial "spoken patois". However, the unity both of UK-English and US-English is uncontroversially carried on by the pronunciation of the educated people. This unity was endangered in the '60s and '70s in the U.S.A by the permissive language policy of the *National Council of Teachers of English* (NCTE, ca. 40,000 members, centered in Champaign-Urbana, Illinois), which accepted the following *Pentalogue*: 1. Languages change constantly. 2. Change is normal. 3. Spoken language is the language. 4. Correctness rests upon usage. 5. All usage is relative. (Tibbets 1978.109-110). The permissive principles were codified in the *Third* Edition of Webster's in 1961 and led to a *setback* in English teaching in the U.S. (not experienced in the Commonwealth territories of the UK). The main difficulty of English is and remains the non-sound-bound spelling, especially in first language teaching. The English orthography is oriented, especially in its intellectual vocabulary, much more on the French and Latin pronunciation than on the (Anglo) Saxon. It is practically impossible to understand it on an associative basis if we do not learn French and Latin (and additionally, Greek and German). Those who know the elements of these foreign languages will find English spelling extraordinarily easy (e.g. many French, German and Italian students). A world curriculum of English (both for First and Second Language setting) should contain parallel Latin, French, Greek and German courses. Without such multilingual supporting courses, the English spelling remains a nightmare claiming at least as much energy from the student as learning the Chinese characters (in the simplest setting 4,000 characters). It should not be forgotten that the unity of the many Englishes (Entry 073) can be guaranteed only on the basis of the *script* and of a uniform pronunciation reflecting the written letter-sequence acoustically in the same way everywhere in the world. Eliminating the writing and pronunciation standards would lead to a collapse of World Communication. English spelling connects the speakers of this language with the cultural tradition of Rome, France, Germany and the Germanic part of Europe (altogether almost 250 million non-English speakers in Europe, see Décsy 1973.290) and with all of Latin America (also ca. 250 million people); it has an incomparable associative value in historical terms. It must be taught and learned with discipline and cannot be left to the tender mercies of "pentaloguist" theoreticians (see above). The pre-educational substandard-partial can only be the starting point and not the *goal* of language education. This point of view has a very special importance for teaching English as a Second Language. A relationship similar to that pointed out for UK and US-English exists, among others, between Danish/Norwegian (Riksmål), Czech/Slovak, Rumanian/Moldovian, Bulgarian/Macedonian, Serbic/Croation, Croatian/Slovenian, Castilian/Catalan, etc.

— Gy. Décsy

129 Uncertainty, Entropy and Communication Information is "the decrease of uncertainty as the result of communication, and hence is calculated as the difference between initial (H_1) and subsequent (H_2) entropy: $I = H_0 — H_1$, with units in bits. Frequently, communication abolishes all uncertainty, so that $H_1 = 0$, and therefore $I = H_0$" (definition by Hailman 1977.30). Entropy is generally regarded as the unavailable (however, calculable or measurable) energy (originally, in thermodynamics, today also in information theory). In an unitiated linguistic usage, entropy, uncertainty and unknown are synonyms and opposites to *knowledge*. Entropy and knowledge are only interchangeable if $I = H_0$ (Hailman 1977.30). We see a basic error of modern formalistic linguistics in the practice commonly used since Hjelmslev to ascribe higher importance to the entropy than to the piece of information itself. The idea of distributionalism is that we can perceive the sign better by entropy than by its inherent internal characteristic features or within its semantic context. That means that in a matrix

b	c	d	e	f
g	h	A	i	j
k	l	m	n	o

A is not *a,* but that very unit which is not b, c, d, e, f, g, h, i, j, k, l, m, n, o (all these units are regarded here as entropy of A). Such procedures are possible, and, e.g. in the set theory or in the distinctive feature analysis also useful; however, in practical applications they are complicated and expensive. In communication and in language the sign is a *positive substance* and not a counterpart of a large number of units of the entropy environment with which it stands in opposition. In a facetious formulation: the sign is, what it is, and not, what it is not. — Gy. Décsy

130 UNESCO Working Group on Languages and Linguistics Established in 1981, as an organ of the International Commission for a Scientific and Cultural History of Humanity of UNESCO, with Charles Morazé (France) as the current President of the Commission; Th. A. Sebeok is the President of this "Working Group." The other members of the "Working Group" are: Shirô Hattori (Japan), József Herman (Hungary), Monica Rector (Brasil), R. H. Robins (Great Britain), and E. M. Uhlenbeck (The Netherlands). The mandate of the "Working Group" is to provide information about "languages and linguistics" in a form suitable for incorporation in the project of the above mentioned International Commission, which has in preparation a series of books on the "Scientific and Cultural History of Humanity". The UNESCO staff member of the "Working Group" is Ulrika von Haumeder, UNESCO, 1 rue Miollis, 75015 Paris, France. — Th. A. Sebeok

131 Unilateralization is an amply discussed phenomenon of human and animal evolution (see at least Flor-Henry and Levy in Harnad 1975.777 and 810, respectively). Symmetry (bilaterality) is the most common form of organization in nature. However, it seems that the most primitive *and* the most developed organizations prefer asymmetry (microorganisms, amoebas vs.: cortex, heart, right-handedness of humans). The universe and the solar system are apparently asymmetric, as are atoms. The impressive symmetry is, according to this, only a transitional organizational principle of the phaseological "Middle Ages". See also Entry 023. — Gy. Décsy

132 Univocalism and Bivocalism Linguists often refer to the presumed phonological univocalism of Abkhazi and Ubykh (two North-West Caucasian languages; Jakobson-Waugh 1979.85, Wescott 1980.173, Schmitt-Brandt 1967.93) as well as of Wishram (a Chinookan Penutioid vernacular of Oregon; Wescott 1980.173 and Hockett in Greenberg 1963.27). A. S. Allen suggested a univocalic (monovocalic) phonological interpretation for Kabard (another North-West Caucasian language) in 1956; A. H. Kuipers made the attempt to qualify Kabard as a totally vowellless idiom in 1960. Allen's and Kuiper's views were refuted both by the Indo-Europeanist Szemerényi and the structuralist M. Halle (review of the discussion in Comrie 1981.197). In the very reliable reference work *Jazyki narodov SSSR* (=*LSU* in References), Vol. 4, two vowel phonemes (*ə* and *a*) are listed for Abkhazi, and seven (*i, u, e, ə, o, a* and *a*) for Kabard (p. 103 and 167). In Abkhazi, *i, u, e,* and *o* can also occur as diphthong components in native words or as independent phonemes in loanwords. The thesis that this language would have only two phonemes is thus the result of an eccentric phonological interpretation. Even if Allen's and Kuiper's views are acceptable, Abkhazi and Kabard (as well as Ubykh which is not listed in the *Jazyki narodov* because its speakers live in Turkey and not in the Soviet Union) would be very untypical individual cases; their "bivocalism" could be explained, besides, as innovation. About the Wishram-univocalism no data are available in reference works. Thus we can state that there are no known languages in the world which have less than three vowels in their phoneme inventory. Ruhlen's view that the North-West Caucasian languages display "only two distinctive vowels" should be corrected accordingly (Ruhlen 1976.73), cf. also Klimov 1969.26 ("*ə* can appear combinatorily as *u* or *i*," etc.). That means that there is no proven univocalism or bivocalism in the presentday languages of the world.

— Gy. Décsy

133 Ural-Altaic Phylum The genetic relationship of the seventeen Uralic languages is today beyond question. However, the internal kinship of the ca. 50 Altaic languages can be regarded as proven only *within* the genetic groups of Turkic (30 languages), Mongolian (8-10 languages), Tungus (10 languages; language numbers here according to Illich-Svitych 1971.70-71). The question whether Uralic, Turkic, Mongolian, Tungus (including Manchu), as well as Korean and Japanese, are genetically interrelated, is open to discussion. In my opinion, the thesis cannot be proven. Uralic, Turkic, Mongolian, Tungus, Korean and Japanese are probably original Paleo-Languages (Entry 082) of linguistic prehistory. Their similarities have universal and/or areal character and will be more the result of contacts than common origin. The similarity between them is striking only when viewed from the side of the (basically very idiosyncratic) Indo-European language type (displayed in Europe mainly by SAE) as most representatives of the theory of the Ural-Altaic genetic relationship have done since the publication of the German original edition of Philipp Johann von Strahlenberg's work (1667-1676-1747) in 1730. It would be irresponsible to maintain the impression in international linguistics that the four or six branches of the Ural-Altaic phylum (Uralic, Turkic, Mongolian, Tungus, Korean, Japanese) were genetically related in the same way as the Indo-European languages. However, this negative attitude does not concern the areal interdependence or affinity of this important East Eurasian phylum which has an internationally highly respected research tradition of more than 300 years (the Ural-Altaic comparative studies were initiated by the Hamburg Polyhistorian Martinus Fogelius in the '50s and '60s of the 17th century, see *UAJb* 41, 1969). The denial of the genetic relationship between Uralic and Altaic does not discard Uralic and Altaic (or Ural-Altaic) studies from the catalog of scientific disciplines; these studies retain their importance in the ramification of Eurasian Areal Linguistics as well as in the frame of Phyletic investigations (Entry 088). It also makes it possible to include further areal units (in any case, Korean, Japanese, but also the Paleo-Siberian languages) in areal-phyletic studies, especially if we accept the possibilities offered by the Nostratics (Entry 072). Ural-Altaic studies remain the kernal area for all these research potentialities. — Gy. Décsy

134 Urschöpfung/Autogenesis, Interjection, Urwortart *Urschöpfung* is the title of a chapter in the *Prinzipien der Sprachgeschichte* of Hermann Paul (§122-188); *Autogenesis* is its English (Greek) translation. According to Paul, the Urschöpfung is any new sound (sequence) produced intentionally or unintentionally in primitive (and also in developed) language communities for the designation of an affect or a concept; often, it is only an improvisation which, however, can become a generally accepted word, if a social need for it is extant (§122-123). If an *Urschöpfung* reflects an acoustic perception (sound or noise of subhumans or of things) we speak of *onomatopeia* (German *Lautnachahmung,* verbatim *sound imitation*). If it renders a non-acoustic (tactile, pheromemic or visual) cognition (feeling, experience) we qualify it as *descriptive* (*Lautmalerei,* verbatim *sonic* *depiction*). German *grell* 'harsh' or English *piercing* are descriptive words; they do not imitate any sound (noise), but they render a visual (grell, harsh) or a tactile (piercing) impression, at least in the opinion of linguists (who often offer rather arbitrary motivations for the relationship in question as they also do for the explanation of iconicity, see Entry 037). The sound sequences we call interjection are, generally, the direct products of *Urschöpfung/Autogenesis,* although the concept "interjection" is more semantic than sound sequence based. The interjection is, first of all, the "proto"-part of speech (*pars orationis,* from Greek *meros tou logou,* see Décsy 1981.42): the most universal (and therefore, oldest) materialization of the category comprising in undivided status the noun, verb, adverb, and all parts of the sentence (subject, predicate, verb) which all represent its secondary (late) semantic-syntactic affiliation. It seems to be a universal (a uneme) that modern "interjectional Urschöpfungs" prefer marginal phonemes or syllable structure, apparently in order to increase the Conspicuousness Index (Décsy 1970.13 and Entry 016). Probably, the very unusual combination "stop+ rolled or liquida" of Indo-European (*kr-, pr-, tr-, kl-, pl-, tl-*) came into being in this way. For details of the whole glottogonic problem of interjection (which is a pregrammatical phenomenon of the language) see Entry 086 and Décsy 1981.42-43 — Gy. Décsy

135 Urtouch The hybrid word *Urtouch* (German *Ur-* 'Proto-' and English *touch*) is the handy English version of G. Révész's *Urkontakt,* which can be regarded as the reason and the purpose of all types of communication (details in Décsy 1981.26-27). The *Fusion/Fission* is a basic form of activity (split and contact) of beings from microorganisms up to humans; the tactile communication (direct contact between two units) is unspecified and most interspecific. The easiest way to communicate with a dog, a cat, or even with a "thing" is to touch it. The most noble, sublime and exalted form of human communication, namely copulation (reproduction) are possible in its genuine form only by physical reunion of two heterogenous (evolutionally split) participants (female and male). Physical reunion (*Urtouch*) is always strongly emotional. The so-called highest forms of communication (the non-tactiles: pheromemic, acoustic, visual) are only *surrogates* for the emotionally always missed/wished tactile reunion. If we smell, taste, hear and see, we want to *have* the Urtouch. The ad of an American phone company "reach out and touch..." (using the telephone as a surrogate for physical contact) calls attention in a striking manner to this most natural way of human, subhuman and suborganic communication. An eccentric explanation would therefore qualify the communication as a deception: it pretends to establish the "Urtouch" while actually only replacing it; the physical contact always leads either to an emotional fulfillment or to its opposite: hate. The more developed the non-tactile communication, the more reasoning and emotionlessness is involved, the most rational-oriented being the ect(em)ic communication of computers. It is no accident that the most disturbing deficiency of computers is seen in their inability to store emotional (apparently chemically rooted) information or to have experiences based on direct touch of the environment. Computer communication can establish neither *fission* (split) nor *fusion* (reunion). Probably, *this* is what limits its possibilities. Human communication without the (in many cases only remote) chance of physical contact would loose its sense. Denis Rougemont, besides de Saussure the most original Switzerland French humanist of recent times, saw the reason for the emergence of the West European civilization in the fact that the people of this area established in the minnesinger culture and the social system of the knighthood (knights-errant) a sublimative way of thinking which, although strongly emotional, opened the way for a pointedly *abstract* concept building outside of the mysticism of religious-theological restrictions. A similar development has never been initiated or carried out by any other high culture of the world (Islam, Buddhism, not even by the Orthodox Church in East Europe). The emotionally-chemically rooted "Urtouch" will apparently remain for a very long time the sense and centerpiece of any communication worthy of humans. — Gy. Décsy

136 Window Used here as 'limitation by nature of the perceiving ability of the organs of sense' (corresponding to the German term *Greiffilter* as defined in Décsy 1981.2 and 36). The range of tactile and pheromemic communication is restricted by distance. In the acoustic communication of humans the "window" is between 16 Hz (hertz) and 20,000 Hz (speech between 150 and 10,000 Hz, music between 50 and 12,000 Hz). In the most developed form of human vision, the color spectrum, the window lies between ca. 380 nanometers (violet light) and ca. 700 nanometers (boundary where the red light grades into infra-red radiation, see Nassau 1980.124). Technically, the window is the portion of frequency within which the stimuli (the waves) reach the organs of sense (ear, eye), being transmitted that way for perception in the nervous system (brain). The window selects the stimuli, making possible a concentration on the most relevant factors of the outside world. Without this natural pre-selection (pre-filtering) of the stimuli man would not be able to keep apart the relevant and the negligible in the environment. The importance of the window as a philosophical-cybernetic principle has been emphasized by Roger Schank (Yale University), one of the main representatives of artificial intelligence research in the U.S.A. (Kendig 1983). The ectric communicators (computers) seem to have no "windows". For the time being, this may be one of the reasons for their imperfection in reasoning as compared with the corresponding human ability. — Gy. Décsy

137 Win the War and Be a Leader in Linguistics: the New Teachings Referring to Yakov Malkiel, Oswald Szemerényi lanced the view that the enormous popularity of de Saussure and structuralism after the First World War was a result of the intensified linguistic activities (managed by the skillful A. Meillet) in victorious France. That was the time when linguists of the world began to turn away from the German *Sprachwissenschaft* (and the German language) expecting new ideas from the intellectually incentive, able and engaged French in Paris who were willing to replace the German world leadership everywhere it seemed possible. The ideas of de Saussure thus became world linguistic principles not by their own virtue, but due to a positional advantage used by the linguistic management of the victorious France (who could offer, at that time, only a Switzerland French and not a domestic linguist as a world leader in Language Science). The (also victorious) British were reserved and the Americans uninterested in taking over the "world leadership" from the Germans after the First World War. The "francophile" small victorious states (Czechoslovakia, Rumania, but apparently, also Denmark) had means and human resources (sometimes more than their leader, namely France) to foster linguistic research (also as an anti-German commitment) on the basis of de Saussure's French-cut structuralism. Prague and Copenhagen became world centers of a *New Teaching* about language; their method consisted not so much in developing convincing new ideas but in discarding the results of established German *Sprachwissenschaft*. This attitude became a typical feature also of the "victors" after the Second World War (first of all, of the Russians and, at the end of the '50s, also of the Americans), with the difference that the "superpowers" generated their *New Teachings* about language in their own management (instead of leaving it to proxies, as the French did after the First World War with respect to the Czechs). The *New Teaching* in Russia was Marrism, an ideologically-bound confusing theory about the superstructure (*Überbau*) character of the language (an excellent review of it now in Szemerényi 1982.1-21). Party patronage made this perplexing theory compulsory in all East Bloc countries between 1948 and 1952. Its method consisted not so much in developing acceptable ideas but in denouncing and destroying traditional language science and its representatives. As the political terror of Marrism reached its height, the party in 1952 revoked the whole theory, giving with the famous Stalin-articles of 1950 (Szemerenyi 1982.12) a green light to the return of conservative-western linguistic research in the Soviet Union and in the East Bloc countries. This was the first time that the party denounced the principles of dialectic materialism in a (politically, in any case, not very important) sector of social life. Since then, linguistics in the East Bloc has been liberal-conservative and, often, surprisingly pluralistic, building on the principles of data-oriented local-regional (national) neogrammarian traditions, apparently with the blessing of the central managerial institutions of the party ideology in Moscow. The *New Linguistic Teaching* of the victorious U.S.A. came somewhat belatedly as a result of the "Sputnik-shock" in America of the late '50s. It is what is known today as *Transformational Grammar* (TG). The forefather of the *New Teaching* was the Danish linguist Hjelmslev who during the German occupation published his *Omkring sprogteoriens grundlaeggelse* (1943), coining the term *glossematics* (apparently a pomato-word from *glosse* and *mathematics,* i.e. language mathematics, mathematical linguistics). He separated the meaning from the sound (sequence) and dealt only with the latter (as did, also, in a certain form, Bloomfield). The Hjelmslev-Bloomfieldian version of structuralism was further developed by Z. Harris (University of Pennsylvania) toward a radical formalism (*Methods in Structural Linguistics* 1951, later editions under *Structural Linguistics*) in which the meaning (of words, sounds, grammatical elements) was practically eliminated from the field of linguistic investigations (for Harris see Szemerényi 1982.25-41). An eccentric-formalistic analysis of languages seemed to be a precondition for the creation of devices for a mechanical translation (*maschinelle Übersetzung*) which was a major concern of that time. However, in the beginning of the '60s it became clear that the project of mechanical translation is, for the time being, not materializable (the Russian military leadership discontinued the corresponding preparatory research without hesitation ca. 1962). Harris' formalistic teaching was carried to MIT (Cambridge, Mass.) by his student Noam Chomsky in a strongly reviewed and changed form. The last score of the *New Teaching* became known as TG, the most influential linguistic thought of the modern world, willingly accepted (except perhaps in the East Bloc) by many professional linguists world-wide (Szemerényi 1982.52); its importance has increased not only by its own virtue but also by the positional advantage given it by the reputation of a worldwide respected university center in Cambridge, Massachusetts (Szemerényi 1982.52). TG has often been equated with the American Linguistics *in toto,* which in real terms it has never been (ca. 50% of the more than 6,000 professional linguists of the U.S.A have never accepted it). TG was, on the one side, a return to the pre-Hjelmslevian connection between sign and meaning (denied by Harris and Bloomfield) and, on the other side, a direct follow-up to Humboldtian linguistics without its powerful Neogrammarian affiliation (regarded, earlier, as the zenith of linguistic science). TG also called attention to syntax, a previously neglected area in the linguistics of English in America. It is regrettable that the many local-regional successor groups and/or individuals of TG later concentrated much more on formal expression techniques (diagrams, operations) of TG (and its unfolding) than on the real reason fo the *New Teaching:* to establish a worldwide common sense in the method of Language Science. In the beginning of the '80s it became clear that TG has been in its basics more a generic philosophical principle than a scientific method of linguistic research: a managerial achievement of the uneasy-restless youth of the '60s/'70s who preached socialism and plurality and *nolens-volens* helped to establish authoritarian-monistic structures, expecting final answers in an easy-convenient way to complicated problems of mankind. The real influence of TG was more psychologically than linguistically bound. The respect and submission with which it was accepted in many countries of the world was a ritual which addressed more the victorious superpower U.S.A. than the founders of the theory. TG has not found the philosopher's stone and was unable to answer the ultimate questions of Language Science (Szemerényi 1982.53). The aversion of its founders against the Neogrammarians, the other (non-generative) American schools (Jakobson, Gleason, Hockett, etc., see Szemerényi 1982.52-105), against the newer German and European linguistics (Martinet, Weisgerber, etc.) is not understandable. Rampant critiques of TG (Maher 1980) used to condense their view in the sentence that what is new (true) in TG is not good, and what is good (true) is not new (true; Görat Hammerström, reference also to Coseriu, Maher 1982). The question also arises, how far can the Neogrammarian school (refused by TG) itself be regarded as a product of the win-the-war-and-be-leader complex: it is certainly no accident that it experienced its heydays following the Franco-Prussian War of 1871 which established the German *Kaiserreich* as a world power and opened unexpected possibilities for unfoldings of the spiritual life (*geistiges Leben*) there (*Gründerzeit* in the '70s of the 19th century). The Neogrammarian school, structuralism, Marrism and TG had a common psychic attitude: their representatives wanted to *replace* (and not to develop) existing research results. They did not want to *discover*, they wanted to *invent* what language is. — Gy. Décsy

138 Worlish Short for *World English* or *English as a World Language*, used as a term by the Nigerian linguist Munzali Jibril (in: Pride 1982.82). Morphologically, it is a telescoping word (see Entry 091). Other occasional designations are *Cosmopolitan English* or *Global Variation* (*Supralect*) *of English*. The following diagram shows the differences between English and its competitors in world communication:

Name	No. of First Language Speakers in millions	No. of Second Language Speakers in millions	Willingness Index in millions
English	400	800	1,500
Spanish	220	30	—
German	120	10	—
French	105	25	—
Portuguese	100	—	—
Esperanto	—	1	10

The Willingness Index indicates the number of people(s) who do not yet speak English but would be ready to accept English as a Second Language (and, consequently, as a Wordlect). The Willingness Index of English (Worlish) is extraordinarily high; it embraces practically the entire population of the East Bloc, of China and of the earlier British Colonies of the World (as far as the population there do not yet speak or learn English). The ruling groups (intelligentsia) of the countries, as far as their members speak English as a Second Language, are taken into consideration in the central column of the diagram (800 million people). In our estimate, 400 million is the number of monolingual English speakers (they speak, basically, only English as a mother tongue or vernacular in the U.S.A., Canada, Great Britain, Ireland, South Africa, Australia, New Zealand, etc.). The world popularity of English is the result of its high degree of instrumentality: it is the mother tongue (vernacular) of the U.S.A. and Great Britain (both victorious in the two World Wars), is (even today) indispensible as a domestic supraregional language in the former British colonies (India with more than one billion people), serving there as the language of high culture. Last but not least, it is the world communication vehicle of a unified technical civilization originated in English mainly in the U.S.A. World English has two basic variations: US-English and UK-English (see Entry 128). — Gy. Décsy

139 Writing/Reading and Talking Computers/Robots Writing/Reading is not a visual but an acoustic form of communication (Entry 100). It has been expected that its general use is going to be limited in the Computer Age (Entry 014). The newest trends seem to contradict this view. 1981/1982 were the years in which the commercial computers/robots began to "talk" and "listen" using the results of speech technology (voiceprint, speech synthesis, see Pisoni 1982). Technically it is no problem any more to transfer a written sound sequence or any other conventional sign (e.g. digit) into a spoken sound sequence displaying the pronunciation habits of any dialect or individual. The command to the computer can now be given "keyboardfree" in spoken form, and the output is receivable in the same way. Computers in automobiles give instructions in spoken form to the driver how to start a car, how to close the door or fasten the seat belt, how many miles he can still drive with the gas in the tank, etc. That means that computer communication is going to become unexpectedly sound sequence bound. Although technically it is no problem to program the computers for the use of different languages (French, German, Japanese, etc.), it is to expect that the spread of speech technology devices will strengthen the monolingual English communication in the world. It can even happen that the intracomputational communication (computer talking to computer) will be carried out exclusively in English sound sequence form. As the computer and the robot population will certainly soon outnumber the human inhabitants of the earth, it is not difficult to imagine what kind of increase this will mean for English in utilization frequency. The world is going to be anglicized not by the English speaking Americans or British Commonwealth peoples, but by the English talking robots. This will make the teaching of writing/reading in the schools the most important part of curricula again. On the basis of Worlish (Entry 138) not only a unified writing/reading system, but also a homogeneous pronunciation standard must be established which guarantees the mutual intelligibility between the talking robots/computers and their masters. The writing/reading and the sound sequence communication in talking form according to this has a bright future, at least as long as the ectremic information (concept to concept transmission between brain and computer) does not replace it. This possibility does not seem to be in the foreseeable range at present.

— Gy. Décsy

140 Yn-question vs. Wh-question Transformational Grammar offered the handy term *wh*-question (corresponding to German *Ergänzungsfrage*) as opposed to the already commonly accepted *yes-no*-question (here shortened to *yn,* see Ambrose-Grillet 1978.126 and 134, German *Entscheidungsfrage*). The *yn* vs. *why* has glottogonical and phaseological importance. Apparently, the *yn*-question is older than the (more sophisticated) *wh*-question. For the *yn* the question is complicated and the answer simple (*yes* or *no*). In this case, the person asking the question does the more intricate intellectual work (reasoning); the answer is easy (e.g., *Was Peter here yesterday? Yes* or *No.*). For the *wh* (in which the character of the question is signalized with an adverb like *wh*ere, *wh*o, *wh*en, *wh*y, but also with *how, what for,* etc.) the question is simple and the answer is intricate. That is the real way of exchanging information if both interlocutors are at a high level of intellectual educatedness. Apparently computers ontologically repeated the human phylogeny, because the first generation of these devices made their outputs only as *yes/no* (they could decide a complicated question, but they could not give broadly based intricate information). Their abilities changed during the last decade and modern computers are able to give complex answers to (relatively) simple (as well as intricate) questions. The socially libertine educational theories of the '60s and '70s returned their examination to the very primitive *yn*-questioning (multiple choice questions). This had catastrophic impact on the information storage and intelligence of youth. A high level intelligence cannot be established and cannot exist without the intricate *wh*-question system. — Gy. Décsy

3. Statistics

3.1 Top 200 languages of the World. Arranged in decreasing order of the number of speakers. Source: Voegelin 1977, Ruhlen 1976, *Statistical Yearbook 1983,* United Nations 1983. Special abbreviations of phylum identification (only at less known units): IE = Indo-European, NK = Niger-Kordofanian. Speaker numbers in millions (rounded off to the next whole number).

3.1.1 Top Twelve

1. Mandarin	800
2. English	400
3. Hindi/Indic	260
4. Spanish	250
5. Arabic	151
6. Bengali/Indic	155
7. German	120
8. Japanese	120
9. Bahasa Indonesian Austro-Tai	115
10. Russian	115
11. French	105
12. Portuguese	100
12 units	2691

3.1.2 Upper Middle

13. Urdu Indic	72
14. Punjab Indic	70
15. Korean	68
16. Italian	65
17. Telugu Dravidian	62
18. Marathi Indic	60
19. Tamil Dravidian	60
20. Cantonese	58
21. Javanese Austro-Tai	52
22. Wu Sino-Tibetan	52
23. Vietnamese Austro-Asiatic	46
24. Min Sino-Tibetan	45
25. Turkish	45
26. Ukrainian	42
27. Thai Austro-Tai	40
28. Gujarati Indic	38
29. Polish	38
30. Malayalam Dravidian	34
31. Kannada Dravidian	34
32. Swahili/NK	32
33. Oriya/Indic	30
34. Persian	30
35. Burmese Sino-Tibetan	28
36. Hakka (China) Sino-Tibetan	28
37. Tagalog (Philipp.) Austro-Tai	28
38. Haussa (Nigeria) Afroasiatic	28
39. Rumanian	23
40. Pashto (Afghanistan) Iranian	21
41. Netherlandish	20
42. Sundanese (Indones.) Austro-Tai	20
43. Serbocroatian	18
44. Taiwanese Sino-Tibetan	18
45. Yoruba/NK	16
46. Bihari/Indic	15
47. Assamenese/Indic	14
48. Hungarian/Uralic	14

49.	Rajasthani/Indic	14
50.	Berber/Afroasiatic (24 sub-branches)	12
51.	Ibo (Nigeria)/NK	12
52.	Malay/Austro-Tai	12
53.	Nepali/Indic	12
54.	Sindhi/Indic	12
55.	Sinhalese (Sri Lanka)/Indic	12
56.	Uzbek/Turkic	12
57.	Cebuano (Philipp.) Austro-Tai	11
58.	Czech	11
59.	Amharic (Ethiopia) Afroasiatic	10
60.	Fulani (Nigeria) NK	10
61.	Oromo (Ethiopia) Afroasiatic	10
	49 units	1514

3.1.3 Lower Middle

62.	Byelorussian	9
63.	Bulgarian	9
64.	Greek	9
65.	Madurese (Indonesia) Austro-Tai	9
66.	Ruanda (Central Africa) NK	9
67.	Afrikaans	8
68.	Azeri/Turkic	8
69.	Galla (Ethiopia) Afroasiatic	8
70.	Kurdish/Iranian	8
71.	Malagasy (Madagascar) Austro-Tai	8
72.	Quechua (Ecuador) Andean-Equatorial	8
73.	Kmer (Cambodia) Austro-Asiatic	7
74.	Tatar/Turkic	7
75.	Santali (India) Austro-Asiatic	7
76.	Shona (SE Africa) NK	6
77.	Sotho (South Africa) NK	6
78.	Tibetan	6
79.	Uighur/Turkic	6
80.	Xhosa (South Africa) NK	6
81.	Zulu (South Africa) NK	6
	20 units	150

82.	Bhili/Indic	5
83.	Catalan	5
84.	Danish	5
85.	Finnish	5
86.	Haitian Creole Romance	5
87.	Ilocano (Philipp.) Austro-Tai	5
88.	Minankabau (Indonesia) Austro-Tai	5
89.	Norwegian	5
90.	Panayan-Hiligayna (Philipp.) Austro-Tai	5
91.	Provençal	5
92.	Rundia (Central Africa) NK	5
93.	Shilha (Morocco) Afroasiatic	5
94.	Somali Afroasiatic	5
95.	Tigrinya (Ethiopia) Afroasiatic	5
96.	Twi-Fante (Ghana) NK	5
97.	Yi (China) Sino-Tibetan	5
	16 units	80

98.	Albanian/IE	4
99.	Armenian/IE	4
100.	Georgian/Caucas.	4
101.	Hebrew, Afroasiatic	4
102.	Maku (South Africa), NK	4
103.	Miao (China, Vietnam) Sino-Tibetan	4
104.	Mossi (Ghana, Upper Volta) NK	4
105.	Nguni (South Africa), NK	4
106.	Kashmiri/Indic	4
107.	Kikuyu (Kenya)/NK	4
108.	Kituba (Zaire)/NK	4
109.	Lao (Laos)/Austro-Tai	4
110.	Luba-Lulua (Zaire)/NK	4
111.	Slovak	4
112.	Tswana (South Africa)/NK	4
113.	Wolof (Senegal)/NK	4
114.	Yiddish/IE	4
	17 units	68

115.	Balinese/Austro-Tai	3
116.	Baluchi/Iranian	3
117.	Bemba (Central Africa)/NK	3
118.	Bikol (Philipp.)/Austro-Tai	3
119.	Ewe (Ghana)/NK	3
120.	Efik (Nigeria)/NK	3

121.	Fang-Bulu (Zaire, Central Africa)/NK	3
122.	Gilaki/Iranian	3
123.	Gondi/Dravidian	3
124.	Guarani /Andean-Equatorial	3
125.	Ijo (Nigeria)/NK	3
126.	Kanuri (Chad)/Nilo-Saharan	3
127.	Kimbundu)Angola)/NK	3
128.	Kongo (Zaire)/NK	3
129.	Konkani/Indic	3
130.	Lithuanian	3
131.	Luganda (Uganda)/NK	3
132.	Luo (Kenya)/Nilo-Saharan	3
133.	Luri/Iranian	3
134.	Malinka (Mali)/NK	3
135.	Mazanderini/Iranian	3
136.	Mundari (India) Austro-Asiatic	3
137.	Tajiki (USSR)/Indic	3
138.	Tiv (Nigeria)/NK	3
139.	Samar-Leyte (Philipp.) Austro-Tai	3
140.	Sango (Central Africa)/NK	3
141.	Shan (Burma)/Sino-Tibetan	3
142.	Umbundu (Angola)/NK	3
	28 units	84

3.1.4 Bottom

143.	Achinese (Indonesia) Austro-Tai	2
144.	Bambara (Mali)/NK	2
145.	Batak (Indonesia)/Austro-Tai	2
146.	Bugi (Indonesia)/Austro-Tai	2
147.	Chuvash/Turkic	2
148.	Dayak (Indonesia)/Austro-Tai	2
149.	Dyula (Ivory Coast)/NK	2
150.	Edo (Nigeria)/NK	2
151.	Fante (Ghana)/NK	2
152.	Karen (Burma)/Sino-Tibetan	2
153.	Khalka/Mongolian	2
154.	Kirghiz/Turkic	2
155.	Kumauni/Indic	2
156.	Kurux/Dravidian	2
157.	Latvian	2
158.	Lingala (Central Africa)/NK	2
159.	Luba (Zaire)/NK	2
160.	Macedonian	2
161.	Mende (Sierre Leone)/NK	2
162.	Mordvinian/Uralic	2
163.	Nubian (Sudan)/Nilo-Saharan	2
164.	Nyamwesi (Uganda)/NK	2
165.	Pampangan (Philipp.) Austro-Tai	2
166.	Romany/Indic	2
167.	Slovenian	2
168.	Sukuma (Uganda)/NK	2
169.	Tsonga (Namibia)/NK	2
170.	Tswana (Lesotho)/NK	2
171.	Tulu/Dravidian	2
172.	Turkoman/Turkic	2
173.	Walamo (Ethiopia) Afroasiatic	2
174.	Yao (Thailand)/Sino-Tibetan	2
	32 units	64

175.	Aymara (Bolivia) Andean-Equatorial	1
176.	Basque (France/Spain)/Isolate	1
177.	Bashkir/Turkic	1
178.	Baule (Ivory Coast)/NK	1
179.	Breton	1
180.	Buryat/Mongolian	1
181.	Dan (Ivory Coast)/NK	1
182.	Estonian	1
183.	Ga (Ghana)/NK	1
184.	Gbari (or Kuta, Nigeria)/NK	1
185.	Gbeya (Central Africa)/NK	1
186.	Gusii (Kenya)/NK	1
187.	Higi (Nigeria)/Afroasiatic	1
188.	Ibanag (Philipp.)/Austro-Tai	1
189.	Irish	1
190.	Kamba (or Kikamba) (Tanzania, Kenya)/NK	1
191.	Luha (Burma)/Sino-Tibetan	1
192.	Logbara (Uganda) Nilo-Saharan	1
193.	Luhya (Kenya)/NK	1
194.	Mangbetu (Zaire) Nilo-Saharan	1
195.	Muong (Vietnam) Austro-Asiatic	1
196.	Nandi (Kenya)/Nilo-Saharan	1
197.	Nahuatl (Mexico) Aztec-Tanoan	1
198.	Ryukyan (Japan)	1
199.	Welsh	1
200.	Zande (Zaire)/NK	1
	26 units	27

The total speaker number of the 200 top languages is 4,678,000 million. We assume that 348 million people were counted twice or several times (because they are bilingual or multilingual). According to this, the 200 languages have only 4,330 million speakers. For further estimates concerning the number of the remaining 2,600 languages and their speaker number see Entry 073, Number of Languages of the World.

3.2 Linguistic Phyla of the Earth with Speaker Numbers as of December 1982

		Phylum/Language	Number of Speakers (in millions)	Estimate in 1000s (not counted)	Number of Languages		Conspicuous Features
					Traditional Estimate	My Estimate	
3.2.1		AFRICA					
1	1.	AFROASIATIC	250		50	50	Gender
2	2.	NIGER-KORDOFANIAN	280		(900)	675	Tone, Gender, Nasal Vowels
3	3.	NILO-SAHARAN	80		(500)	375	Tone
4	4.	KHOISAN		(150)	15		Clicks, Tone, Nasal Vowels
			640		(1465)	1100	
3.2.2		EUROPE (with Indo-European, Asia and Oceania)					
5	1.	INDO-EUROPEAN	1800		90	90	Gender, 5V
6	2.	CAUCASIAN	5		37	37	Ejectives, Ergative
7	3.	URALIC	23		17	17	Agglutination, Vowel Harmony
			1828		144	144	
3.2.3		ASIA (without Indo-European)					
8	1.	ALTAIC (with Japanese & Korean)	250		40	40	Agglutination
9	2.	PALEOSIBERIAN		(32)	8	8	Incorporation
10	3.	DRAVIDIAN	270		25	25	Retroflexed C, Negative Verbs
11	4.	SINO-TIBETAN	1250		(300)	230	Tone, Monosyllabics, Ablaut
12	5.	AUSTRO-ASIATIC	50		(150)	75	Infixes, Prepositions
			1820		(523)	378	
3.2.4		OCEANIA (without English)					
13	1.	INDO-PACIFIC	2	(50)	(700)	350	Tone, Ablaut, Gender
14	2.	AUSTRALIAN		(50)	230	230	Prefixes, ŋ, 3V, *h*-less
15	3.	AUSTRO-TAI	280		(150)	75	
			282		(1080)	655	
3.2.5		NORTH AMERICA					
16	1.	ESKIMO-ALEUT		(83)	5		3V, No Prefixes, Dual, Polysint.
17	2.	NA-DENE		(300)	22		Nasal Vowels, *h*, Ejectives
18	3.	MACRO-ALGONQUIAN		(150)	20		Polysint., Long G
19	4.	SALISH		(7)	16		No Nasal C, Ejectives, Velar Stops
20	5.	WAKASHAN		(4)	7		3V, No Nasal C
21	6.	MACRO-SIOUAN		(38)	18		Long Vowels, Lack of Labial Stops
22	7.	PENUTIAN	3		60		Long Vowels, Lack of Vibrants
23	8.	HOKAN		(40)	20		5V, Long Vowels
24	9.	AZTEC-TANOAN	2		20		Long Vowels, Tone (in some languages)
25	10.	OTO-MANGUEAN	1		30		Tone, Nasal Vowels
			6		218		
3.2.6		SOUTH AMERICA					
26	1.	MACRO-CHIBCHAN		(80)	10	10	
27	2.	GE-PANO-CARIB	2		120	120	Long Vowels (w)
28	3.	ANDEAN-EQUATORIAL	15		(150)	100	Long Vowels, Oral/Nasal Opposition
			17		(280)	205	
3.2.7		UNCLASSIFIED/ISOLATES					
29		All over the world	7		100		
			4600			2800	

EXPLANATIONS:
Speaker numbers less than one million are in parentheses and are not counted.
Based on Ruhlen 1976.53-145 and American Geographic Society's *World Population Data 1982*
3V = three vowels in phoneme inventory 5V = five vowels in phoneme inventory

3.3 The *h*-lessness in the Linguistic Phyla of the Earth

	NUMBER OF LANGUAGES				NUMBER OF SPEAKERS		
			h-less			*h*-less	
Phylum Ruhlen 1976	Total (est.)	Listed in Ruilen	Absolute	Percentage	Total in thousands	Absolute in thousands	Percentage
1. Afro-Asiatic	50	29	8	36.2	175,000	513.0	0.3
2. Andean-Equatorial	2	39	8	20.5	10,000	8,048.2	80.5
3. Austro-Asiatic	(150)	17	2	12.0	40,000	367.0	0.4
4. Australian	260	20	20	100.0	50	50.0	100.0
5. Austro-Tai	(550)	67	17	25.3	180,000	171.3	0.1
6. Dravidian	25	10	4	40.0	150,000	67,067.9	44.7
7. Eskimo-Aleut	5	5	4	80.0	83	80.6	97.1
8. Ge-Pano-Carib	120	24	5	21.0	1,500	41.0	2.8
9. Hokan	20	19	5	25.0	37	17.0	45.9
10. Indo-European	90	80	19	23.7	1,591,200	611,111.0	34.0
11. Indo-Pacific	(700)	50	28	56.0	2,500	295.1	11.8
12. Macro-Algonquin	20	13	2	15.0	150	45.0	30.0
13. Macro-Chibchan	10	10	1	10.0	80	20.0	25.0
14. Macro-Siouan	18	12	1	8.0	38	0.1	0.26
15. Mongolian	8	2	2	100.0	3,500	2,353.0	67.2
16. Niger-Kordofanian	(900)	51	25	49.0	180,000	(90,000.0)	(50.0)
17. Nilo-Saharan	(500)	25	9	36.0	30,000	(4,188.3)	14.0
18. Oto-Manguean	30	14	1	7.1	1,000	250.0	25.0
19. Paleosiberian	8	6	2	25.0	30.3	27.2	89.7
20. Penutian	58	43	9	20.9	2,600	963.0	37.0
21. Sino-Tibetan	(300)	18	2	11.0	700,000	400,023.0	57.0
22. Tungus	9	8	6	66.6	86.9	39.2	45.1
23. Uralic	17	(23)	11	64.7	23,000	3,091.0	13.0
24. Unqualifiable/Isolate			5	100.0		700.3	

The following six phyla (101 languages, 5,302,700 speakers) are *h*-ful: *Khoisan* (Africa, 15 languages, 150,000 people); *Caucasian* (37 languages, 5 million people); *Na-Dene* (22 languages, 140,000 speakers in North America); *Salish* (16 languages, 7,000 speakers); *Wakashan* (7 languages, 4,000 people); and *Aztec-Tanoan* (4 languages, 8,000 speakers).

BREAKDOWN OF INDO-EUROPEAN BRANCHES CONCERNING *H*-LESSNESS

Baltic	2	2	1	50.0	4,000	2,500.0	62.5
Celtic	4	4	1	20.0	2,700	1,000.0	37.0
Germanic	9	9	1	11.0	430,000	20,000.0	4.6
Greek	1	1	1	100.0	8,000	8,000.0	100.0
Indic	35	25	1	0.0	400,000	100.0	0.0
Iranian	20	20	5	25.0	50,000	2,589.5	5.2
Romance	7	7	6	83.3	464,500	444,500.0	95.6
Slavic	12	12	3	25.0	232,000	131,522.0	56.7
TOTAL	90	80	19		1,591,200	611,111.0	

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Afterword

The designation *World Communication Year 1983* was specified by the United Nation's General Assembly as a time to encourage and expedite development of communications systems in a global ramification. Significant sections of its program design are broadcasting, television, newspapers, education, aviation, shipping, transportation, meteorology, agriculture, health, postal service and industry — all providing contacts between individuals and groups on earth. The program designers placed no special stress on language and linguistics which are equal in importance to any of the above mentioned sections. Actually, the sound sequence language (for definition see p. 103 in this book) is the most genuine communication system of mankind, even if it is — according to newer research — not older than ca. 35,000 years (see p. 49). If we assume (as modern anthropologists do) that the entire evolutionary history of mankind covers about three million years, then we have to conclude that our ancestors lived only 1% of their "history" with the miraculous communications system we call language. Language is thus a relatively *recent* and, apparently, only a *temporary* communication system of the human race. The Computer Age with its inexpensive and highly efficient information storage and knowledge exchange systems obviously accelerated the decline of language and language culture in many areas of our life. Language is nothing more than *one* of the many communications systems of man, and probably not the most perfect. In the '80s and '90s we have to face many consequences of that (even if this appears regrettable or deplorable to many of us). This book intends to attract attention to this aspect of language in a global frame. Some (or even many) of its theses and conclusions may encounter challenge or evoke unfavorable reaction not only by strongly theory-oriented professional "entrenched" linguists, but also by the general public interested in worldwide communication.

The editor expresses here his thanks to the contributors (their names appear on the title page) as well as to all persons who helped create this publication with remarks, advice, criticism, discussion and encouragement in a world and field in which the inherent willingness of mankind to perceive new ideas is often restricted by traditional or enforced bias. Our solace is that man of the looming *1984* is apparently signed out by the fate to be human and humane in *this* way.

Bloomington, Indiana, October 23, 1983 — Gyula Décsy

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ISSN 0342-4871

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